



Public Health  
England

Protecting and improving the nation's health

# **Report on progress towards the first 5% reduction and next steps: Appendix 3**

Detailed assessment of progress for  
each product category in the sugar  
reduction programme

## About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

Public Health England  
Wellington House  
133-155 Waterloo Road  
London SE1 8UG  
Tel: 020 7654 8000  
[www.gov.uk/phe](http://www.gov.uk/phe)  
Twitter: [@PHE\\_uk](https://twitter.com/PHE_uk)  
Facebook: [www.facebook.com/PublicHealthEngland](https://www.facebook.com/PublicHealthEngland)

Prepared by: Dr Alison Tedstone, Vicki Coulton, Victoria Targett, Anita Bennett, Kate Sweeney, Kathryn Morgan, Emma Clegg, Mark Robinson, Leigh Dowd, Bethany Knowles, Gabrielle Owtram, Clare Perkins

For queries relating to this document, please contact: [sugarreduction@phe.gov.uk](mailto:sugarreduction@phe.gov.uk)

© Crown copyright 2018

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit [OGL](https://www.ogil.io) or email [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk). Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Published May 2018  
PHE publications  
gateway number: 2018069

PHE supports the UN  
Sustainable Development Goals



# Contents

About Public Health England	2
Biscuits	4
Breakfast cereals	20
Cakes	35
Chocolate confectionery	44
Ice cream, lollies and sorbets	55
Morning goods	73
Puddings	81
Sweet spreads and sauces	97
Sweet confectionery	106
Yogurts and fromage frais	117
Drinks covered by the soft drink industry levy for retailers and manufacturers	134
References	143

# Biscuits: analysis of average sugar levels and calories per portion from baseline to year 1

## Summary

This section presents for retailer own brand and manufacturer branded products, category and business level analysis of sugar content and calories per portion between baseline and year 1 for sweet biscuits. Overall there has been no change in sales weight average (SWA) total sugar levels (g/100g) and a 3% reduction in SWA calories per portion.

This section also presents for the out of home sector category and business level analysis of sugar content and calories per portion for year 1. Changes between baseline and year 1 are not reported for this sector due to data limitations that we are working to address for year 2.

Datasets based on consumer panel food purchase surveys have been used for these analyses. The baseline year is 2015. For year 1, data for retailers and manufacturers are for the year ending September 2017, and for the out of home sector are for the year ending August 2017. Some businesses have made reduction and reformulation changes that will not be captured within this timeframe, and they will be reported in subsequent assessments of progress.

## Biscuits in the retail and manufacturing sectors

The analysis in this section is based on biscuits and biscuit products with real nutrition information in the retail and manufacturing sector taken from Kantar Worldpanel datasets. In 2017 this covered 78% of all the biscuits in the dataset and 89% of the volume of biscuits sold from retailer own brand and manufacturer branded products.

Table 1 shows that sales weighted average (SWA) total sugar levels (g/100g) in retailer own brand and manufacturer branded biscuits combined consumption remained largely flat between baseline and year 1. SWA calories per portion fell by 3% compared with a revised baseline figure of 128 kcal. (See the methodology section of the report (appendix 2) for more information about the revised baselines).

**Table 1: Sales weighted average total sugar levels (g/100g), ranges of total sugar (g/100g) and average single serve calories per portion (kcal) for biscuits at baseline (2015) and year 1 (2017) for retailers and manufacturers combined**

	Baseline	Year 1	% change
Number of products with real nutrition information	2671	2532	
Proportion of all products in the category that have real nutrition information	79%	78%	
Proportion of volume sales in the category with real nutrition information	93%	89%	
Retailer and manufacturer sales weighted average (SWA) total sugar content (g/100g)	31.5g	31.4g	0%
Range of total sugar content across products in category (min-max, g/100g)	0.5g – 61.0g	0.5g - 58.9g	
Range of total sugar content in top 20 products by volume sugar sales (min-max, g/100g)	16.6g – 52.5g	16.6g – 52.5g	
SWA calories per portion (for single serve products)	129 kcal 128 kcal (revised)	124 kcal	-3%

From table 2 it can be calculated that SWA total sugar levels (g/100g) reduced by 1% and calories per portion fell by 2% for manufacturer branded products. There was no discernable change in average sugar levels for retailer own brand products, however calories per portion fell by 2%.

**Table 2: Sales weighted average total sugar levels (g/100g) and average calories per portion (kcal) for single serve biscuits for manufacturers and retailers at Baseline (2015) and Year 1 (2017)**

	Baseline		Year 1	
	Manufacturers	Retailers	Manufacturers	Retailers
Market share (% volume sales)	60%	40%	59%	41%
SWA total sugar content (g/100g)	33.0g	29.1g	32.8g	29.2g
SWA calories per portion (for single serve products)	129 kcal 128 kcal (revised)	128 kcal 125 kcal (revised)	125 kcal	123 kcal

## Analysis by company and brand within the manufacturing sector

Four of the top 10 biscuits manufacturers by market share saw a reduction in their SWA total sugar levels between baseline and year 1. Four increased their SWA total sugar levels and 2 businesses either declined permission to publish their data at business level or did not respond to PHE's request to publish their data, as shown in table 3. The largest reduction was 8.8% and the biggest increase was 3.7%. Some businesses have future reductions in the pipeline or have completed reformulation which has not been captured in the datasets (see case studies in appendix 4).

**Table 3: Percentage change in SWA total sugar for the top 10 manufacturers by market share (listed in alphabetical order by business)**

Business	% change in SWA sugar (Year 1 vs Baseline)
Burton's Biscuit Co	-3.8%
Fox's Biscuits	1.3%
General Mills Inc	-8.8%
Kellogg Co.of G B Ltd	No permission
Lotus Bakeries UK	3.7%*
Mondelez	1.0%
Nestlé UK and Ireland	-1.2%
Paterson-Arran Ltd	No response
Pladis UK	1.3%
Thomas Tunnocks Ltd	-1.2%

■ SWA sugar value is at or below the combined in-home guideline figure for year 1 (29.9g)  
Products that were previously manufactured by United Biscuits are included under the global brand of Pladis UK for year 1

\*This figure includes products from Natural Balance Foods, a part-owned business of Lotus Bakeries Group (not Lotus Bakeries UK). When these are removed from the analysis there is no change in the sales weighted average total sugar figure for Lotus Bakeries UK.

For the businesses that are in table 3, the case studies presented in table 4 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 4: Case study summary for the top manufacturers highlighted in Table 3**

Timeframe	Case study summary	Case study reference
Pre-Baseline	Pre-Baseline <b>Kellogg Co. of G B Ltd</b> reformulated the recipe of Special K bars, reducing the sugar and increasing the fibre content.	Case study 19
Between Baseline to Year 1	Between Baseline to Year 1 <b>Nestlé UK and Ireland</b> reformulated the recipe of KitKat achieving calorie and sugar reduction.	Case study 29
Between Baseline to Year 1	Between Baseline to Year 1 <b>Pladis UK</b> reformulated and achieved sugar reduction in the go ahead! cereal bar range.	Case study 30
Post-Year 1	Post-Year 1 <b>Mondelez</b> completed portion size reduction in four Belvita cereal bar products reducing calories, fat and sugar in each serving.	Case study 26

For each of the top 10 manufacturers in table 3, table 5 shows the brand with the highest sugar sales in year 1. In most cases there has been no change in the sugar value of the highest contributing brand between baseline and year 1. Two brands reduced the average sugar content by 3-5%.

**Table 5: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 10 manufacturers (listed in alphabetical order)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)
Burton's Biscuit Co	Maryland Cookies	34.7 -
Fox's Biscuits	Fox's Crunch Creams	40.1 -
General Mills Inc	Nature Valley Crunchy Granola Bar	27.7 -
Kellogg Co.of G B Ltd	Kellogg's Rice Krispies Squares	35.9 -
Lotus Bakeries UK	Lotus Caramelised Biscuits	38.1 -
Mondelez	Belvita Breakfast Biscuits	23.9 -
Nestlé UK and Ireland	KitKat	49.8 ↓
Paterson-Arran Ltd	Paterson's Shortbread Biscuit	19.0 -
Pladis UK	McVitie's Choc Digestive	28.6 -
Thomas Tunnocks Ltd	Tunnock's Caramel Wafer	32.6 ↓

-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%


Table 6 shows the top 20 biscuit brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt.

Seven of the top 20 selling brands have seen a reduction of at least 2% in their average sugar values between baseline and year 1. Out of the 7 brands which showed decreases in sugar, 1 brand showed an increase in saturated fat, calories and salt. No other products saw nutrient increases. One brand showed a decrease in saturated fat, calories and salt, 1 brand showed a decrease in saturated fat only, and 1 brand showed a decrease in calories only. The remaining 3 brands which showed decreases in sugar showed no change in saturated fat and calories. Further case study details can be found in appendix 4.

**Table 6: Sugar content and nutrient changes for top 20 biscuit brands by total sugar sales in year 1 (listed in alphabetical order)**

Brand	Sugar (g/100g)	Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Belvita Breakfast Biscuits	23.9 -	-	-	-
Blue Riband	44.9 ↓	-	-	-
Burtons Wagon Wheels	36.4 -	-	-	-
Cadbury Brunch Bars	38.2 -	-	-	-
Cadbury Fingers	32.5 ↓	-	-	-
Fox's Crunch Creams	40.1 -	-	-	-
Fox's Rocky	41.6 ↓	↓	-	-
KitKat	49.8 ↓	-	-	-
Maryland Cookies	34.7 -	-	-	-
McVitie's Choc Digestive	28.6 -	-	-	-
McVitie's Choc Hobnobs	32.5 -	-	-	-
McVitie's Club	39.7 -	-	-	-
McVitie's Digestives	16.6 -	-	-	-
McVitie's go ahead! Crispy Slices	33.6 ↓	-	↓	-
McVitie's Gold Bar*	51.3			
McVitie's Jaffa Cakes	51.9 -	-	-	-
McVitie's Penguin	40.0 -	-	-	-
McVitie's Rich Tea Biscuits	20.2 -	-	-	-
Nabisco Oreo Cookie Cream	36.8 ↓	↓	↓	↓
Tunnock's Caramel Wafer	32.6 ↓	↑	↑	↑

*	Comparable data not available
-	No change
↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)

 Average sugar value of brand is at or below the combined in-home guideline figure for year 1 (29.9g)




## Analysis by retailer and brand within the retail sector

Table 7 shows that for retailers there have been reductions in average sugar levels for 5 retailers and an increase in average sugar levels for 1 retailer. For 7 out of the top 10 retailers, their SWA sugar level (g/100g) is below the guideline for the category in year 1.

**Table 7: Percentage change in SWA sugar for the top 10 retailers by market share (listed in alphabetical order by business)**

Business	% change in SWA (Year 1 vs Baseline)
<b>Aldi Stores Ltd</b>	Data not comparable**
<b>Asda Stores Ltd</b>	-5.2%
<b>Co-operative food</b>	-8.0%
<b>J Sainsbury's</b>	0.0%
<b>Lidl UK GMBH</b>	Data not comparable
<b>Marks and Spencer</b>	No permission
<b>Morrisons Ltd</b>	-3.6%
<b>SPAR UK</b>	-3.4%
<b>Tesco Food Stores Ltd</b>	2.6%
<b>Waitrose Ltd</b>	-0.3%

 SWA sugar value is at or below the combined in-home guideline figure for year 1 (29.9g)

\*\*No comparable data for baseline and year 1 and no permission given to publish SWA related information

For the businesses that are in table 7, the case studies presented in table 8 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 8: Case study summary for the top retailers highlighted in Table 7**

Timeframe	Case study summary	Case study reference
Pre-Baseline, and Post-Year 1	Pre-Baseline <b>Asda Stores Ltd</b> reformulated six cereal bar products and Post-Year 1 the recipes of five premium biscuits were also reformulated.	Case study 1
Between Baseline to Year 1, and Post-Year 1	Between Baseline to Year 1 <b>Lidl UK GMBH</b> reformulated the recipe of Ginger Nuts and Post-Year 1 seven further biscuits were reformulated.	Case study 22
Between Baseline to Year 1	Between Baseline to Year 1 <b>Tesco Food Stores Ltd</b> reformulated the recipes of thirty-six family favourite biscuits.	Case study 39

For each of the top 10 retailers in table 7, table 9 shows the brand with the highest sugar sales in year 1. For 7 of the retailers the top sugar contributing brand was jam/cream filled biscuits. Two retailers have reduced the average sugar content in their top brand biscuit by at least 2%.

**Table 9: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 10 retailers (listed in alphabetical order by business)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)	
Aldi Stores Ltd	Aldi Jam/Cream Filled Biscuit	30.7	*
Asda Stores Ltd	Asda Chosen By You Jam/Cream Filled Biscuit	30.0	↓
Co-operative food	Co-op Loved By Us Shortbread	20.0	*
J Sainsbury's	Sainsbury's By Jam/Cream Filled Biscuit	29.7	↓
Lidl UK GMBH	Lidl Jam/Cream Filled Biscuit	33.4	*
Marks and Spencer	M&S Extremely Biscuit	42.7	-
Morrisons Ltd	Morrisons Jam/Cream Filled Biscuit	27.8	-
SPAR UK	Spar Jam/Cream Filled Biscuit	30.3	-
Tesco Food Stores Ltd	Tesco Jam/Cream Filled Biscuit	30.9	-
Waitrose Ltd	Waitrose Assortments	45.4	-

*	Comparable data not available
-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

Table 10 shows the top 20 retailer biscuit brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt. Eight of the top 20 brands have average sugar content below the year 1 guideline value and 4 brands saw reductions of at least 2% in their sugar levels in year 1. Out of the 4 retailer brands which showed decreases in sugar, 1 brand showed an increase in both saturated fat and calories, and 3 brands showed no change in saturated fat and calories.

**Table 10: Sugar content and nutrient changes for top 20 retailer biscuit brands by total sugar sales in year 1 (listed in alphabetical order)**

Brand	Sugar (g/100g)	Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Aldi Caramel Shortcake *	44.0			
Aldi Caramel Wafer *	50.1			
Aldi Jam/Cream Filled Biscuit *	30.7			
Aldi Sweet Biscuit *	23.6			
Asda Chosen By You Jam/Cream Filled Biscuit	30.0 ↓	-	-	↓
Lidl Biscuit Bars*	37.4			
Lidl Chocolate Digestives*	27.8			
Lidl Ginger Biscuit *	41.6			
Lidl Jaffa Cakes *	51.0			
Lidl Jam/Cream Filled Biscuit *	34.0			
Lidl Wafers *	45.3			
M&S Extremely Biscuit	42.7 -	-	-	-
Morrisons Jam/Cream Filled Biscuit	27.8 -	-	-	-
Morrisons Sweet Biscuits	29.7 -	-	-	-
Sainsbury's By Jam/Cream Filled Biscuit	29.7 ↓	-	-	↑
Tesco Jam/Cream Filled Biscuit	30.9 -	-	-	-
Tesco Semi-Sweet Biscuits	22.0 ↓	-	-	-
Tesco Sweet Biscuits	34.4 ↓	↑	↑	-
Tesco Value Chocolate Digestive	27.4 -	-	-	-
Tesco Value Ginger Biscuit	28.3 -	-	-	-

*	Comparable data not available
-	No change
↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)

	Average sugar value of brand is at or below the combined in-home guideline figure for Year 1 (29.9g)
	Average sugar value of brand is above the year 1 combined in-home guideline by less than 1%

## Single serve product analysis across retailers and manufacturers

Table 11 shows calories per portion in the baseline year and year 1 for the top 20 selling single serve biscuit products. In most cases there has been no change over the first year of the programme. Following sugar reformulation, 3 of the biscuit products reduced the calories per portion between baseline and year 1, and 1 product showed an increase in calories per portion. Some reformulation activity was completed in September 2017 and was therefore not captured in the Kantar Worldpanel dataset. Further detail on this is shown in appendix 4.

**Table 11: Calories per portion at baseline and year 1 for the top 20 single serve biscuit products across retailers and manufacturers based on total sales in year 1 (listed in alphabetical order)**

Product	Baseline Calories per portion (kcal)	Year 1 Calories per portion (kcal)	Change in calories per portion
Belmont Caramel Wafer Bars	129	129	0%
Belvita Breakfast Soft Bakes Chocolate Chip	203	204	0%
Belvita Breakfast Soft Bakes Red Berries	190	190	0%
Belvita Breakfast Cocoa With Chocolate Chips	220	220	0%
Belvita Breakfast Honey & Nuts With Chocolate Chips	228	228	0%
Belvita Breakfast Milk & Cereals	223	220	-1%
Cadbury Brunch Bar Chocchip	142	142	0%
Cadbury Brunch Bar Raisin	138	138	0%
Jive (Aldi) Caramel Shortcake Bars	140	140	0%
Maryland Cookies Minis Double Chocolate	125	126	1%
McVitie's Club Mint	112	112	0%
McVitie's Club Orange	113	113	0%
McVitie's go ahead! Crispy Slices Apple	171	166	-3%
McVitie's Gold Crunchy Biscuit Bars	112	112	0%
McVitie's Penguin Original	128	128	0%
Mister Chocolate Caramel & Biscuit	282	282	0%
Nestlé KitKat Original	106	104	-2%
Nestlé KitKat Dark	104	104	0%
Tunnock's Caramel Log	150	150	0%
Tunnock's Tea Cakes Milk Chocolate	106	106	0%

Figures 1 and 2 show the distribution of total sugar (g/100g) and calories per portion for all biscuits with real nutrition information in the Kantar Worldpanel datasets at baseline and year 1.

Figure 1: Distribution of total sugar (g/100g) for retailer and manufacturer biscuits

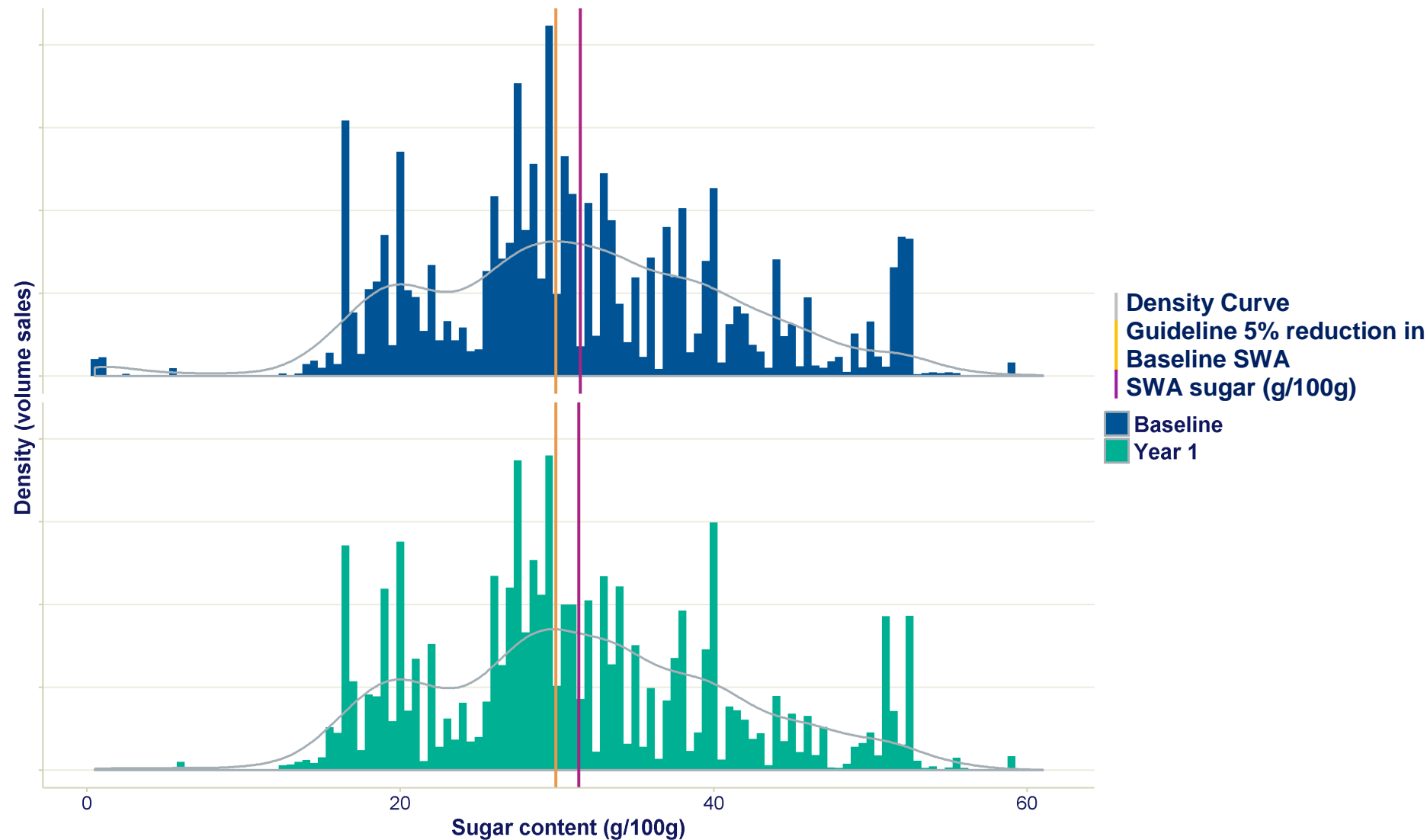
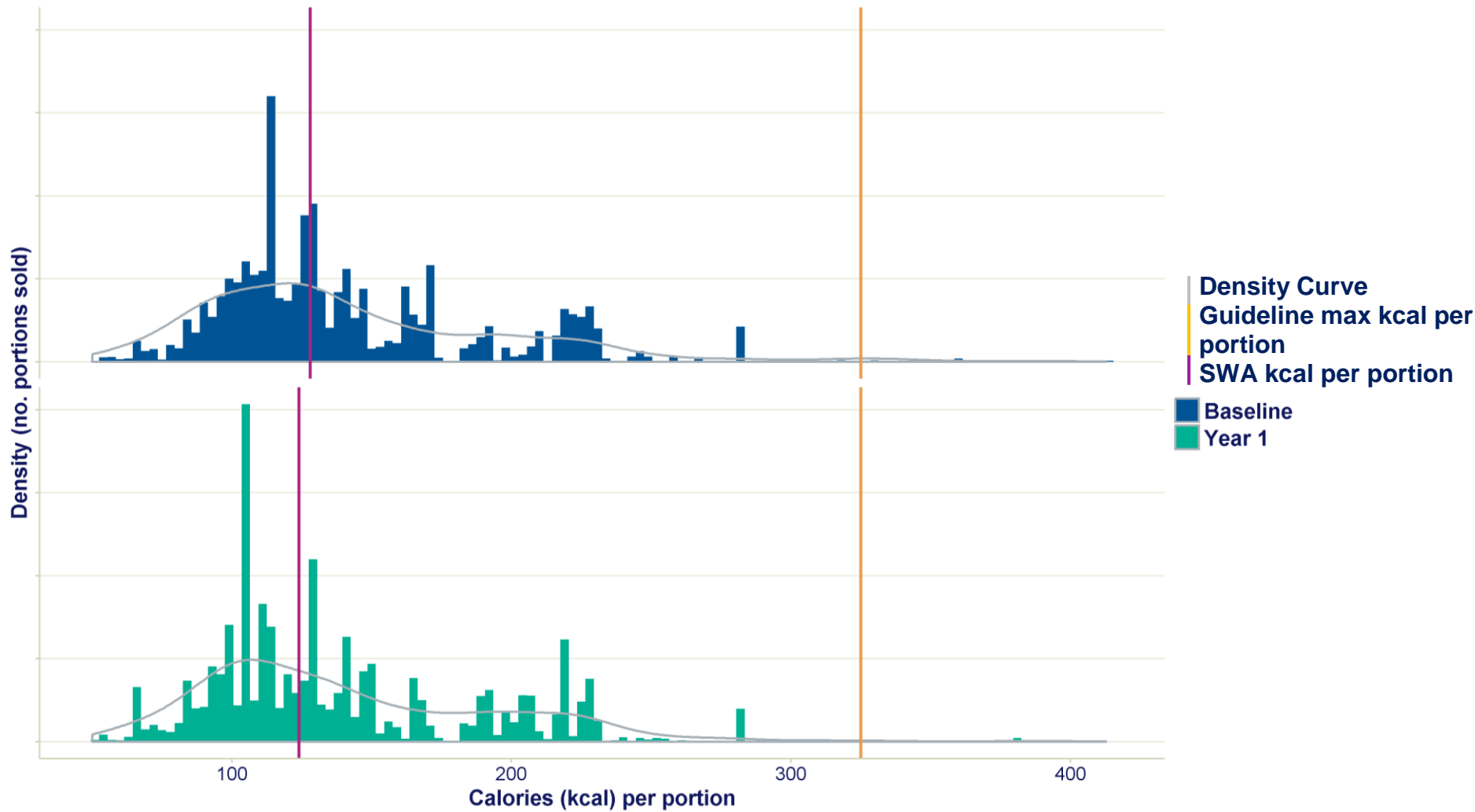


Figure 2: Distribution of calories per portion (kcal) for single serve retailer and manufacturer biscuits



## Biscuits in the out of home sector

Table 12 shows updated baseline statistics for biscuits purchased out of the home. Purchases (volume sales) are based on the reported volume of product consumed. The SWA total sugar level (g/100g) for biscuits in the out of home sector was 35g in 2017. This can not be directly compared with the figure published for 2015 due to a change in data supplier and improved data coverage (see the methodology section of the report for more information about the updated baselines for out of home).

The out of home SWA for total sugar is 11% higher than the equivalent figure for biscuits purchased for in-home consumption. Some businesses have future reductions in the pipeline or have completed reformulation work which has not been captured in the datasets. Further details can be found in appendix 4.

**Table 12: Biscuits: Updated baseline statistics for out of home food, 2017**

	2017 (updated Baseline)
Baseline sales weighted average (SWA) total sugar content (g/100g)	35g
Range of total sugar content across products in category (min-max, g/ 100g)	0.8g – 66.7g
SWA calories per portion	264 kcal

Table 13 shows SWA total sugar levels and calories per portion for the range of products where data has been collected for the top 10 sellers of biscuits out of home. The number of products used in the SWA calculation in each year are shown in the table. Nutrition information is only available for a limited number of businesses and there are different amounts of information for individual businesses in each year. The product mix in baseline and year 1 may be different due to increased availability of data for year 1 which could affect the average sugar levels reported.

**Table 13: Top 10 sellers\* of biscuits out of home in year 1 (2017), with nutrition data at baseline (2015) and year 1 (2017) where available, listed in alphabetical order**

Business	2015				2017			
	sugar (g/100g)		calories per portion		sugar (g/100g)		calories per portion	
	SWA	number of products	SWA	number of products	SWA	number of products	SWA	number of products
Asda Stores Ltd (Food to Go section)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Caffè Nero	34.7	14	258	14	35.1	24	277	24
Co-operative food (Food to Go section)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Costa Coffee	30.1	11	304	11	33.6	22	319	22
Greggs	38.7	9	324	9	38.6	14	303	14
J Sainsbury's (Food to Go section)	n/a	n/a	n/a	n/a	41.4	3	284	3
McDonald's	39.5	1	368	1	37.3	3	218	3
Starbucks	36.3	11	353	11	38.3	24	312	24
Subway	n/a	6	n/a	6	n/a	n/a	212	5
Tesco Food Stores Ltd (Food to Go section)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

n/a – Nutrition information not available in the OOH dataset, therefore SWA calculation is not possible.

\*Top 10 sellers of biscuits have been ranked based on reported volume of product type consumed from each business.

For the businesses that are in table 13, the case studies presented in table 14 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 14: Case study summary for the top businesses highlighted in Table 13**

Timeframe	Case study summary	Case Study reference
Between Baseline to Year 1	Between Baseline to Year 1 <b>Starbucks</b> reformulated the recipe of Milk Choc Chunk Cookie.	Case study 36

Table 15 shows the top 10 biscuit product types purchased in the out of home sector listed alphabetically by business. There is a range of sugar values in the top 10 including 4 products below the SWA for biscuits out of home in year 1.



**Table 15: Average sugar levels (g/100g) for the top 10 biscuit product types purchased\* out of home (by total sugar sales\* in year 1), listed in alphabetical order by business**

Business	Top sugar contributing product type (by total sugar sales in Year 1)	Average sugar content of top contributing product type (g/100g)
Caffè Nero	Biscuit	32.5
Caffè Nero	Cookie	39.1
Costa Coffee	Biscuit	27.4
Costa Coffee	Cookie	37.7
Costa Coffee	Shortbread	27.6
Greggs	Cookie	39.5
J Sainsbury's (Food to Go section)	Biscuit	41.3
McDonald's	Cookie	37.3
Starbucks	Biscuit	34.6
Starbucks	Cookie	40.2

\*Purchased and total sugar sales relate to the reported volume of product consumed



 Average sugar value is at or below the OOH updated baseline (2017) figure (35g)

Table 16 shows average calories per portion for the top 10 biscuit product types based on total calorie sales in 2017. Four of the top 10 biscuit products have an average portion size above the guideline maximum of 325 calories.

**Table 16: Average calories per portion (kcal) for the top 10 biscuit product types purchased\* out of home (by total calorie sales\* in year 1), listed in alphabetical order**

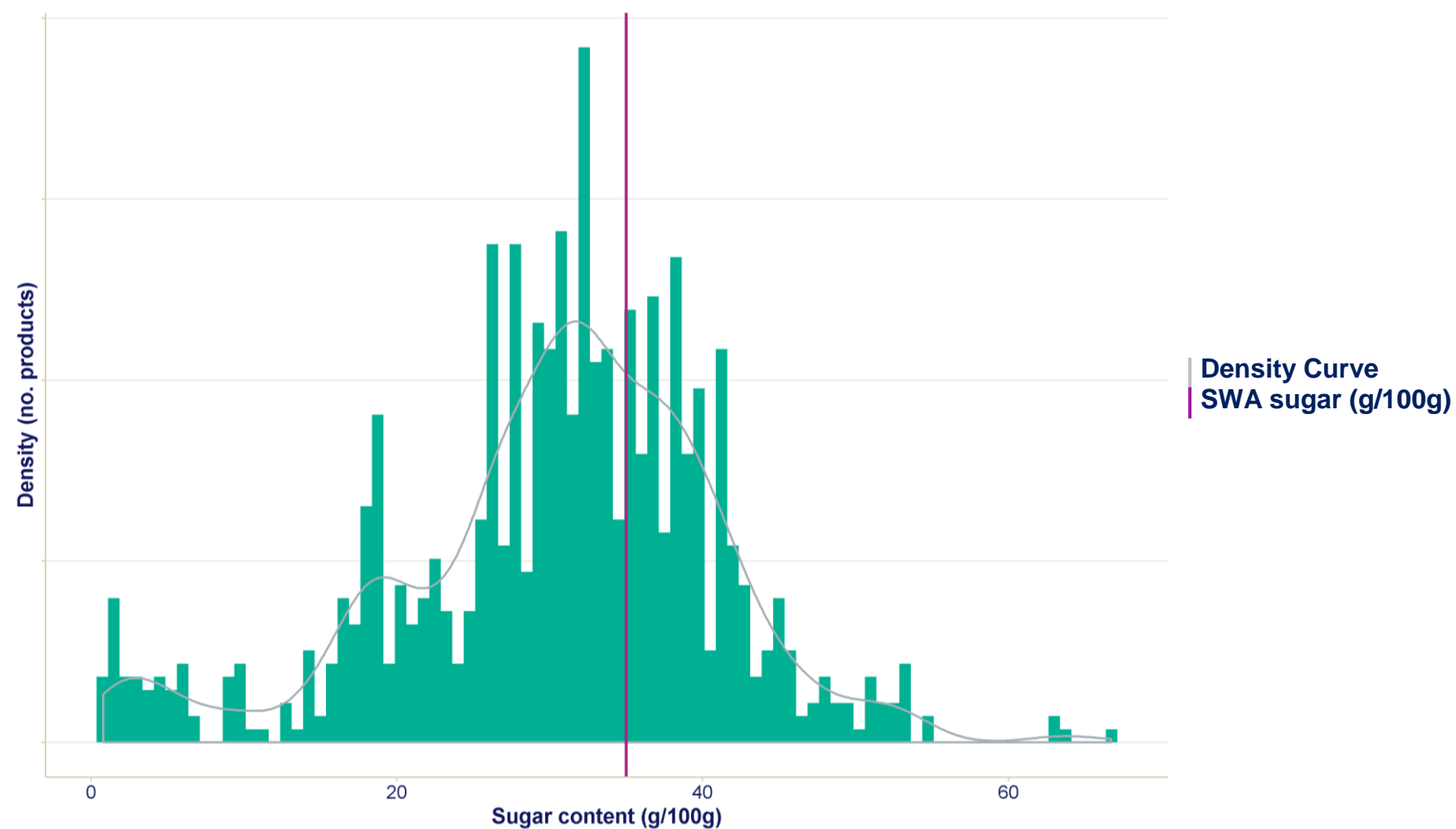
Business	Top calorie contributing product type (by total calorie sales in Year 1)	Average calorie content of top contributing product type (kcal per portion)
Caffè Nero	Cookie	316
Costa Coffee	Biscuit	252
Costa Coffee	Cookie	391
Costa Coffee	Shortbread	287
Greggs	Cookie	376
J Sainsbury's (Food to Go section)	Biscuit	310
KFC	Cookie	375
McDonald's	Cookie	220
Starbucks	Cookie	329
Subway	Cookie	215

\*Purchased and total calorie sales relate to the reported volume of product consumed

 Average calories per portion is above the guideline maximum (325kcal)

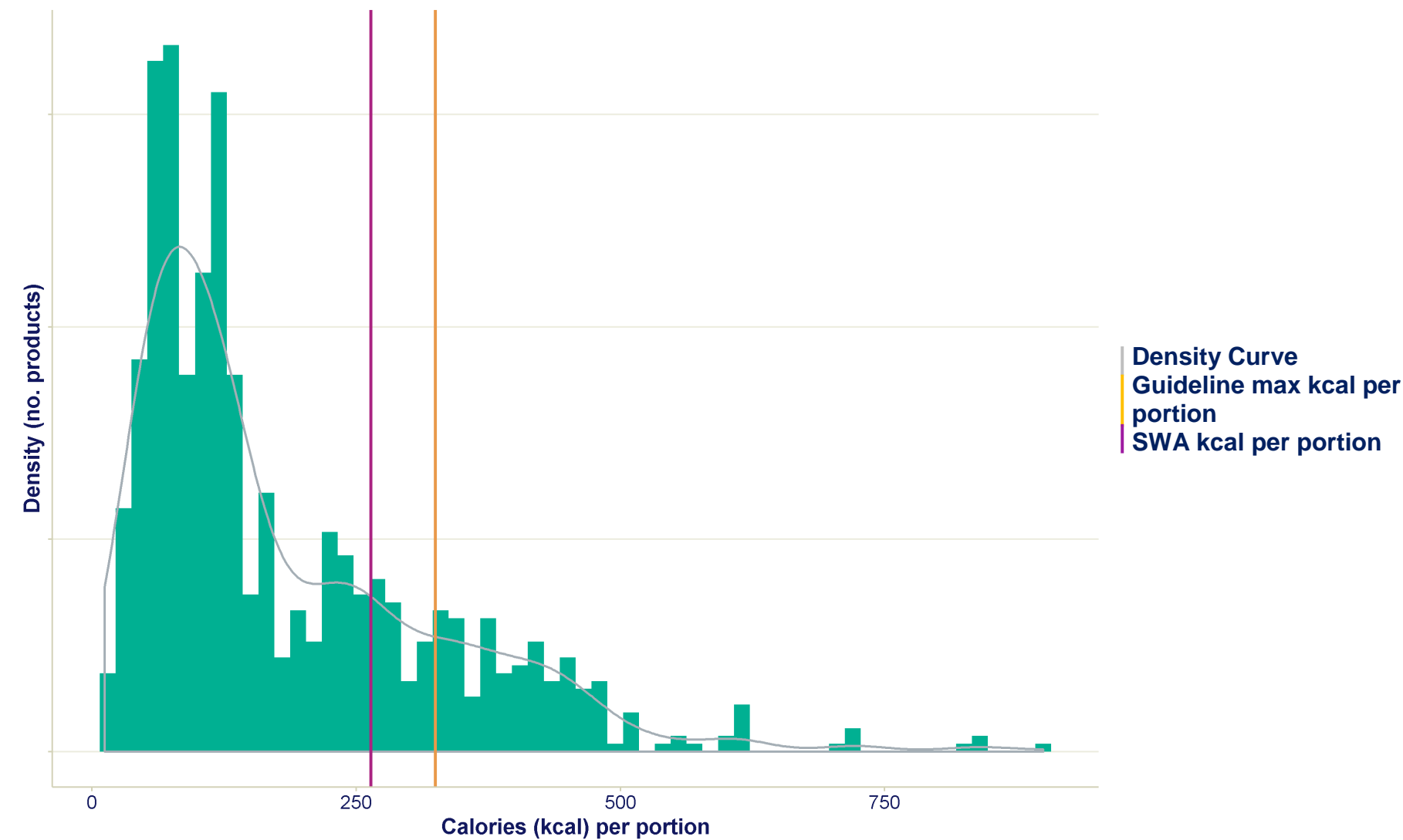
Figures 3 and 4 show the distribution of total sugar (g/100g) and calories per portion for biscuits purchased out of home based on the available nutrition data for Year 1 (2017).

**Figure 3: Distribution of total sugar (g/100g) for biscuit product types purchased\* out of home, year 1 (2017)**



\*Biscuit product types purchased relate to the reported volume of product consumed

**Figure 4: Distribution of calories per portion (kcal) for biscuit product types purchased\* out of home, year 1 (2017)**



\*Biscuit product types purchased relate to the reported volume of product consumed

# Breakfast cereals: analysis of average sugar levels and calories per portion from baseline to year 1

## Summary

This section presents for retailer own brand and manufacturer branded products, category and business level analysis of sugar content between baseline and year 1 for breakfast cereals. Data on calories per portion for retailer own brand and manufacturer branded products are not presented since very few of these products are sold as single serve items. Overall, there has been a 5% reduction in SWA total sugar levels (g/100g).

This section also presents for the out of home sector category and business level analysis of sugar content and calories per portion for year 1. Changes between baseline and year 1 are not reported for this sector due to data limitations that we are working to address for year 2.

Datasets based on consumer panel food purchase surveys have been used for these analyses. The baseline year is 2015. For year 1, data for retailers and manufacturers are for the year ending September 2017, and for the out of home sector are for the year ending August 2017. Some businesses have made reduction and reformulation changes that will not be captured within this timeframe, and they will be reported in subsequent assessments of progress.

## Breakfast cereals in the retail and manufacturing sectors

The analysis in this section is based on breakfast cereal products with real nutrition information for the retail own label and manufacturer branded products taken from Kantar Worldpanel datasets. In 2017 this covered 88% of all the breakfast cereals in the dataset and 97% of the volume of breakfast cereals sold for retailer own brand and manufacturer branded products.

Table 1 shows that sales weighted average (SWA) total sugar levels (g/100g) in retailer own brand and manufacturer branded breakfast cereals combined fell by 5% between baseline and year 1. The range of total sugar levels per 100g in products available on the market was largely unchanged.

**Table 1: Sales weighted average total sugar levels and ranges of total sugar (g/100g) for breakfast cereals at baseline (2015) and year 1 (2017) for retailers and manufacturers combined**

	Baseline	Year 1	% change
Number of products with real nutrition information	1417	1521	
Proportion of all products in the category that have real nutrition information	91%	88%	
Proportion of volume sales in the category with real nutrition information	98%	97%	
Retailer and manufacturer sales weighted average (SWA) total sugar content (g/100g)	16.7g	15.8g	-5%
Range of total sugar content across products in category (min-max, g/100g)	0.1g – 56.7g	0.5g - 55.0g	
Range of total sugar content in top 20 products by volume sugar sales (min-max, g/100g)	8g – 37g	8g – 37g	

From table 2 it can be calculated that SWA total sugar levels reduced by 5% for both retailer own brand and manufacturer branded products.

**Table 2: Sales weighted average total sugar levels (g/100g) for breakfast cereals for manufacturers and retailers at baseline (2015) and year 1 (2017)**


	Baseline		Year 1	
	Manufacturers	Retailers	Manufacturers	Retailers
Market share (% volume sales)	63%	37%	59%	41%
SWA total sugar content (g/100g)	17.4g	15.5g	16.6g	14.8g

### Analysis by company and brand within the manufacturing sector

Four of the top 10 breakfast cereal manufacturers by market share saw a reduction in their SWA total sugar levels between baseline and year 1 as shown in table 3. Some businesses have future reductions in the pipeline or have completed reformulation which has not been captured in the datasets (see case studies in appendix 4).

**Table 3: Percentage change in SWA total sugar for the top 10 manufacturers by market share (listed in alphabetical order by business)**

Business	% change in SWA (Year 1 vs Baseline)
<b>Cereal Partners Worldwide</b>	-2.4%
<b>Dorset Cereals Ltd</b>	1.0%
<b>Flahavan's Ltd</b>	No response
<b>Halo Foods</b>	No response
<b>Kellogg Co.of G B Ltd</b>	No permission
<b>Morning Foods Ltd</b>	No permission
<b>Nature's Path Foods</b>	No response
<b>Quaker Oats Ltd</b>	-5.6%
<b>The Jordans &amp; Ryvita Company</b>	-7.1%
<b>Weetabix Ltd</b>	-2.5%

 SWA sugar value is at or below the combined in-home guideline figure for year 1 (15.9g)

For the businesses that are in table 3, the case studies presented in table 4 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 4: Case study summary for the top manufacturers highlighted in Table 3**

Timeframe	Case study summary	Case study reference
Pre-Baseline and Post-Year 1	Pre-Baseline <b>Cereal Partners Worldwide</b> reformulated the recipes of six breakfast cereals and Post-Year 1 Nestlé Multigrain Cheerios were also reformulated.	Case study 7
Pre-Baseline and Post-Year 1	Pre-Baseline <b>Kellogg Co.of G B Ltd</b> reformulated the recipes of eleven breakfast cereals and Post-Year 1 three further breakfast cereals were reformulated.	Case study 19
Pre-Baseline, Between Baseline to Year 1 and Post-Year 1	Pre-Baseline <b>The Jordans &amp; Ryvita Company</b> reformulated ten breakfast cereals and from Baseline to Year 1 and Post-Year 1 five new products have been launched.	Case study 38

For each of the top 10 manufacturers in table 3, table 5 shows the brand with the highest sugar sales in year 1. In most cases there has been no change in the sugar value of the highest contributing brand between the baseline and year 1. There were reductions of at least 2% in 2 brands and an increase of at least 2% for 1 brand.

**Table 5: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 10 manufacturers (listed in alphabetical order)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)
Cereal Partners Worldwide	Nestlé Cheerios	21.0 -
Dorset Cereals Ltd	Dorset Muesli	23.4 -
Flahavan's Ltd	Flahavan's Organic Oats	0.9 -
Halo Foods	Honey Monster Puffs	22.0 ↓
Kellogg Co. of G B Ltd	Kellogg's Crunchy Nut Cornflakes	35.3 -
Morning Foods Ltd	Mornflakes Granola	23.5 -
Nature's Path Foods	Nature's Path Organic Gluten Free Sunrise	21.0 ↑
Quaker Oats Ltd	Quaker Oat So Simple	15.5 -
The Jordans & Ryvita Company	Jordans Country Crisp	21.5 ↓
Weetabix Ltd	Weetabix Mini Crisp Chocolate	21.0 -

-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%


Table 6 shows the top 20 cereal brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt.

Six of the top 20 selling brands have seen a reduction of at least 2% in their average sugar values between the baseline and year 1. One of these 6 reduced sugar and salt levels, however the calories and saturated fat content increased. Three of these 6 have seen no change in calories, saturated fat or salt; 1 has seen a reduction in salt and 1 has seen an increase in salt. Four other brands have seen changes in 1 of the other nutrients included in table 6, although there has been no change in sugar levels for these.

**Table 6: Sugar content and nutrient changes for top 20 breakfast cereal brands by total sugar sales in year 1 (listed in alphabetical order)**

Brand	Sugar (g/100g)	Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Alpen	22.4 -	-	↓	↑
Dorset Muesli	23.4 -	-	-	↑
Jordans Country Crisp	21.5 ↓	-	-	↓
Jordans Granola	17.9 ↓	-	-	-
Kellogg's Coco Pops	30.9 ↓	-	-	-
Kellogg's Cornflakes	8.0 -	-	-	-
Kellogg's Crunchy Nut Cornflakes	35.3 -	-	↓	-
Kellogg's Crunchy Nut Cluster	23.0 ↓	↑	↑	↓
Kellogg's Frosties	37.0 -	-	-	-
Kellogg's Fruit+Fibre	24.0 -	-	-	-
Kellogg's Rice Krispies	10.0 -	-	-	-
Kellogg's Special K	15.0 -	-	-	-
Nestlé Cheerios	21.0 -	-	-	-
Nestlé Curiously Cinnamon	25.0 -	-	-	-
Nestlé Frosted Shreddies	27.0 ↓	-	-	-
Nestlé Shreddies	15.0 -	-	-	-
Quaker Oat So Simple	15.5 -	-	-	↑
Weetabix	4.4 -	-	-	-
Weetabix Mini Crisp Chocolate	21.0 -	-	-	-
Weetos	21.8 ↓	-	-	↑

-	No change
↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)

 Average sugar value of brand is at or below the combined in-home guideline figure for year 1 (15.9g)




## Analysis by retailer and brand within the retail sector

Table 7 shows that for retailer own brand products there have been reductions in average sugar levels for 4 businesses. The large increase in the SWA for 1 business was a result of a reduction in sales of lower sugar breakfast cereals such as porridge.

**Table 7: Percentage change in SWA sugar for the top retailers by market share (listed in alphabetical order by business)**

Business	% change in SWA (Year 1 vs Baseline)
<b>Aldi Stores Ltd</b>	Data not comparable**
<b>Asda Stores Ltd</b>	-7.9%
<b>Co-operative food</b>	34.1%
<b>J Sainsbury's</b>	-12.1%
<b>Lidl UK GMBH</b>	Data not comparable
<b>Marks and Spencer</b>	No permission
<b>Morrisons Ltd</b>	2.2%
<b>Tesco Food Stores Ltd</b>	-4.2%
<b>Waitrose Ltd</b>	-4.0%

 SWA sugar value is at or below the combined in-home guideline figure for year 1 (15.9g)

\*\*No comparable data for baseline and year 1 and no permission given to publish SWA related information

For the businesses that are in table 7, the case studies presented in table 8 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 8: Case study summary for the top retailers highlighted in Table 7**

<b>Timeframe</b>	<b>Case study summary</b>	<b>Case Study reference</b>
Pre-Baseline	Pre-baseline <b>Asda Stores Ltd</b> reformulated the recipes and reduced the sugar content of three breakfast cereals in 2014, and thirty-one breakfast cereals in 2015.	Case study 1
Pre-Baseline and Between Baseline to Year 1	Pre-baseline <b>Tesco Foods Ltd</b> reformulated the recipes and reduced the sugar content of eighty-six own brand breakfast cereals. Reformulation continued in Year 1 including reducing the sugar content of Frosted Flakes.	Case study 39
Pre-Baseline, Between Baseline to Year 1 and Post-Year 1	<b>Co-operative food</b> reformulated the recipes of two products Pre-Baseline, fourteen products between Baseline and Year 1 and two products Post-Year1.	Case study 10
Pre-Baseline, Between Baseline to Year 1 and Post-Year 1	Pre-baseline <b>Lidl UK GMBH</b> reformulated Crownfield Cornflakes and between Baseline and Year 1 and Post-Year1 the recipes of ten products were also reformulated.	Case study 22
Between Baseline to Year 1 and Post-Year 1	Between Baseline to Year 1 <b>Morrisons Ltd</b> reformulated the recipe of Mighty Malties and Post-Year 1 six further breakfast cereals have been reformulated.	Case study 27
Between Baseline to Year 1	<b>Waitrose Ltd</b> reformulated the recipes and reduced the sugar content of twenty-seven breakfast cereals.	Case study 42

For each of the retailers in table 7, table 9 shows the brand with the highest sugar sales in year 1. Three of these brands showed a reduction in average total sugar content per 100g between baseline and year 1 with all others remaining the same.

**Table 9: Sugar content per 100g for the top sugar contributing brands (based on total sugar sales) for the top retailers (listed in alphabetical order)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)	
Aldi Stores Ltd	Aldi Granola	25.4	*
Asda Stores Ltd	Asda Chosen By You Malted Wheaties	14.0	-
Co-operative food	Co-op Sultana Bran	30.4	-
J Sainsbury's	Sainsbury's By Granola	20.8	↓
Lidl UK GMBH	Lidl Muesli	28.6	*
Marks and Spencer	M&S Muesli	22.5	↓
Morrisons Ltd	Morrisons Fruit+Fibre	25.8	-
Tesco Food Stores Ltd	Tesco Honey & Nut Cornflakes	30.3	-
Waitrose Ltd	Waitrose Oat Crunchy	21.1	↓

*	Comparable data not available
-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

Table 10 shows the top 20 retailer own brand breakfast cereal brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt. Four of the top 20 brands saw reductions of at least 2% in their sugar levels in year 1. Two brands have average sugar levels below the guideline figure for year 1. Comparable data for 11 of the top 20 brands are not available.

**Table 10: Sugar content and nutrient changes for top 20 retailer breakfast cereal brands by total sugar sales in year 1 (listed in alphabetical order)**

Brand	Sugar (g/100g)	Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Aldi Bran Flakes*	19.0			
Aldi Choco Pillows*	29.6			
Aldi Crisp*	20.1			
Aldi Crunchy Honey+Nut Cornflakes*	28.0			
Aldi Fruit+Fibre*	21.9			
Aldi Granola*	25.4			
Aldi Muesli*	26.6			
Aldi Sugar Frosted Flakes*	35.0			
Asda Chosen By You Malted Wheaties	14.0 -	-	-	-
Lidl Golden Balls*	36.0			
Lidl Luxury Muesli*	30.0			
Lidl Muesli*	28.6			
Tesco Choco Snaps	32.1 -	-	-	-
Tesco Crunchy Oat Cereal	21.1 ↓	↓	↓	↑
Tesco Frosted Flakes	34.9 -	-	-	-
Tesco Fruit & Fibre	21.7 ↓	-	↓	-
Tesco Honey & Nut Cornflakes	30.3 ↓	-	-	-
Tesco Malt Wheats	20.3 -	-	↑	↓
Tesco Pillows	29.2 ↑	↑	↑	↓
Tesco Light Choices Bran Flakes	13.6 ↓	↓	-	↓

*	Comparable data not available
-	No change
↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)


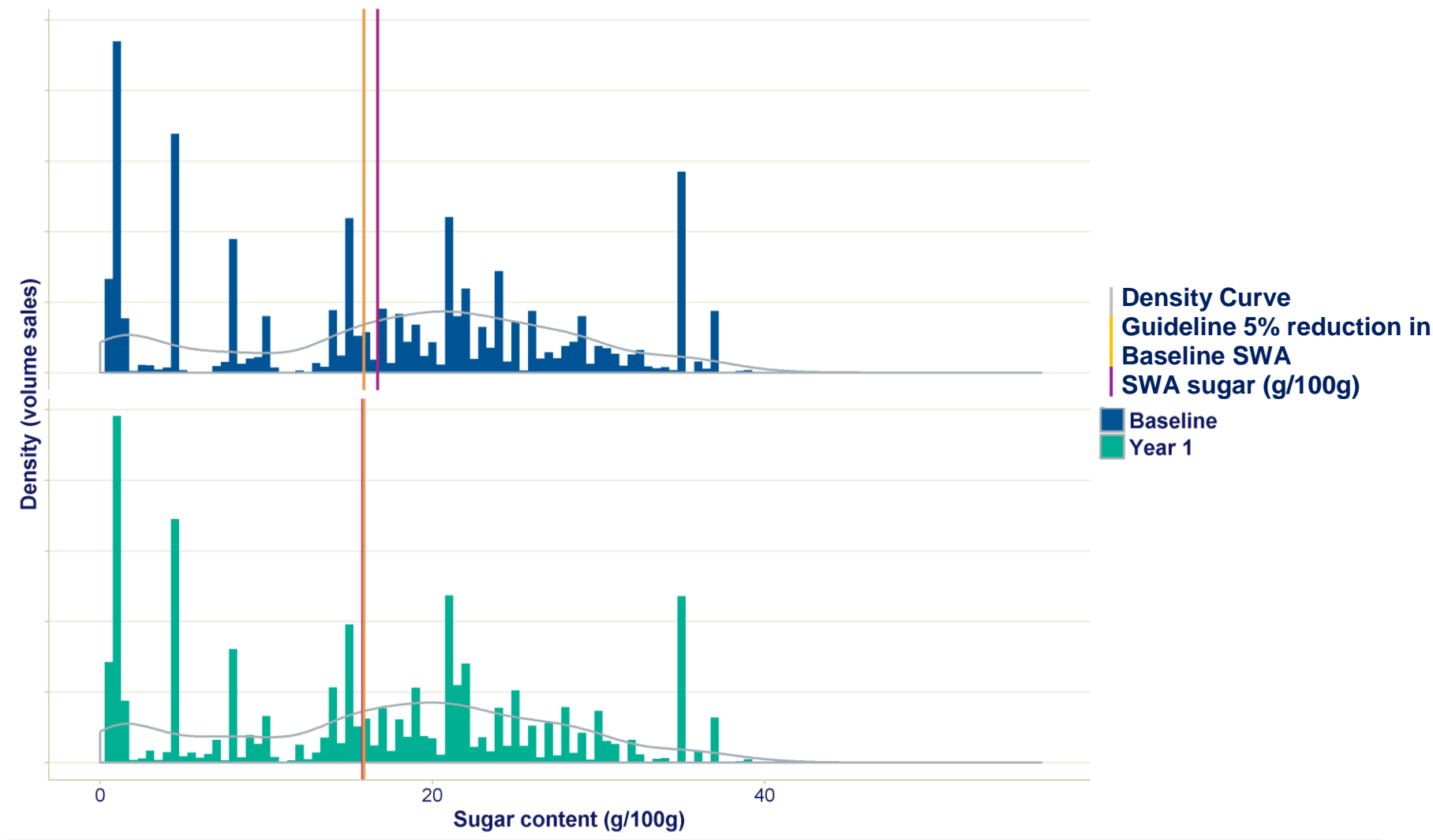
 Average sugar value of brand is at or below the combined in-home guideline figure for year 1 (15.9g)

Figure 1 shows the distribution of total sugar (g/100g) for all breakfast cereal products with real nutrition information in the Kantar Worldpanel datasets at baseline and year 1.

Figure 1: Distribution of total sugar (g/100g) for retailer and manufacturer breakfast cereals



## Breakfast cereals in the out of home sector

Table 11 shows updated baseline statistics for breakfast cereals purchased out of the home. Purchases (volume sales) are based on the reported volume of product consumed. The SWA total sugar level (g/100g) for breakfast cereals in the out of home sector was 8.7g per 100g in 2017. This cannot be directly compared with the figure published for 2015 due to a change in data supplier and improved data coverage (see the methodology section of the report for more information about the updated baselines for out of home).

The out of home sales weighted average for total sugar is 45% lower than the equivalent figure for breakfast cereals purchased for in-home consumption due to the fact that a high proportion of cereals sold out of home are plain porridge products with typically lower sugar values.

**Table 11: Breakfast cereals: Updated baseline statistics for out of home food, 2017**

	2017 (updated Baseline)
Baseline sales weighted average (SWA) total sugar content (g/100g)	8.7g
Range of total sugar content across products in category (min-max, g/100g)	0.3g – 76.3g
SWA calories per portion	250 kcal

Table 12 shows SWA total sugar levels and portion sizes for the range of products where data has been collected for the top 10 sellers of breakfast cereals out of home. The number of products used in the SWA calculation in each year are shown in the table. Nutrition information is only available for a limited number of businesses and there are different amounts of information for individual businesses in each year.

**Table 12: Top 10 sellers\* of breakfast cereals out of home in year 1(2017), with nutrition data at baseline (2015) and year 1 (2017) where available, listed in alphabetical order by business and signposting to their supporting case studies**

Business	2015				2017			
	sugar (g/100g)		calories per portion		sugar (g/100g)		calories per portion	
	SWA	number of products	SWA	number of products	SWA	number of products	SWA	number of products
BB's Coffee & Muffins	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Burger King	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Caffè Nero	4.1	1	234	1	3.6	4	217	4
Costa Coffee	20.9	1	294	1	6.4	2	257	2
Greggs	5.8	3	250	3	4.7	6	264	6
J Sainsbury's Cafe	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
McDonald's	n/a	n/a	n/a	n/a	10.2	2	254	2
Morrisons Ltd Cafe	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Starbucks	n/a	n/a	n/a	n/a	5.5	3	278	3
Tesco Food Stores Ltd Cafe	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

n/a – Nutrition information not available in the OOH dataset, therefore SWA calculation is not possible.

\*Top 10 sellers of breakfast cereals have been ranked based on reported volume of product type consumed from each business.

For the businesses that are in table 12, the case studies presented in table 13 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 13: Case study summary for the top businesses highlighted in Table 12**

Timeframe	Case study summary	Case study reference
Post-Year 1	<b>Greggs</b> reformulated the recipes and reduced the sugar content of two porridge pots.	Case study 16

Table 14 shows the top 10 breakfast cereal product types purchased in the out of home sector by estimated sugar sales. Four of the top 10 product types have average sugar levels below the category average for all cereals in year 1. There is a range of average sugar levels across porridge products depending on the inclusion of additions and toppings.

**Table 14: Average sugar levels for the top 10 breakfast cereal product types purchased\* out of home (by total sugar sales\* in year 1), listed in alphabetical order by business**

Business	Top sugar contributing product type (by total sugar sales in Year 1)	Average sugar content of top contributing product type (g/100g)
Caffè Nero	Porridge	3.6
Costa Coffee	Porridge	6.4
Greggs	Porridge	4.7
McDonald's	Porridge	10.2
Pret A Manger	Muesli bircher	16.6
Pret A Manger <sup>+</sup>	Porridge	21.3
Starbucks	Muesli bircher	14.0
Starbucks	Porridge	2.0
Toby Carvery	Cereal	21.1
Toby Carvery	Porridge	19.9

\*Purchased and total sugar sales relate to the reported volume of product consumed

+ Pret porridge includes toppings or additions eg honey


 Average sugar value is at or below the OOH updated baseline (2017) figure (8.7g)

Table 15 shows the top 10 breakfast cereal product types purchased out of home by total calorie sales in 2017. One of the top products has an average portion size above the guideline maximum of 400 kcal.

**Table 15: Average calories per portion (kcal) for the top 10 breakfast cereal product types purchased\* out of home (by total calorie sales\* in year 1), listed in alphabetical order by business**

Business	Top calorie contributing product type (by total calorie sales in Year 1)	Average calorie content of top contributing product type (kcal per portion)
Bill's Restaurant	Porridge	463
Caffè Nero	Porridge	228
Costa Coffee	Porridge	257
Greggs	Porridge	264
JD Wetherspoon	Porridge	386
McDonald's	Porridge	259
Pret A Manger	Porridge	143
Starbucks	Muesli bircher	253
Starbucks	Porridge	294
Toby Carvery	Cereal	122

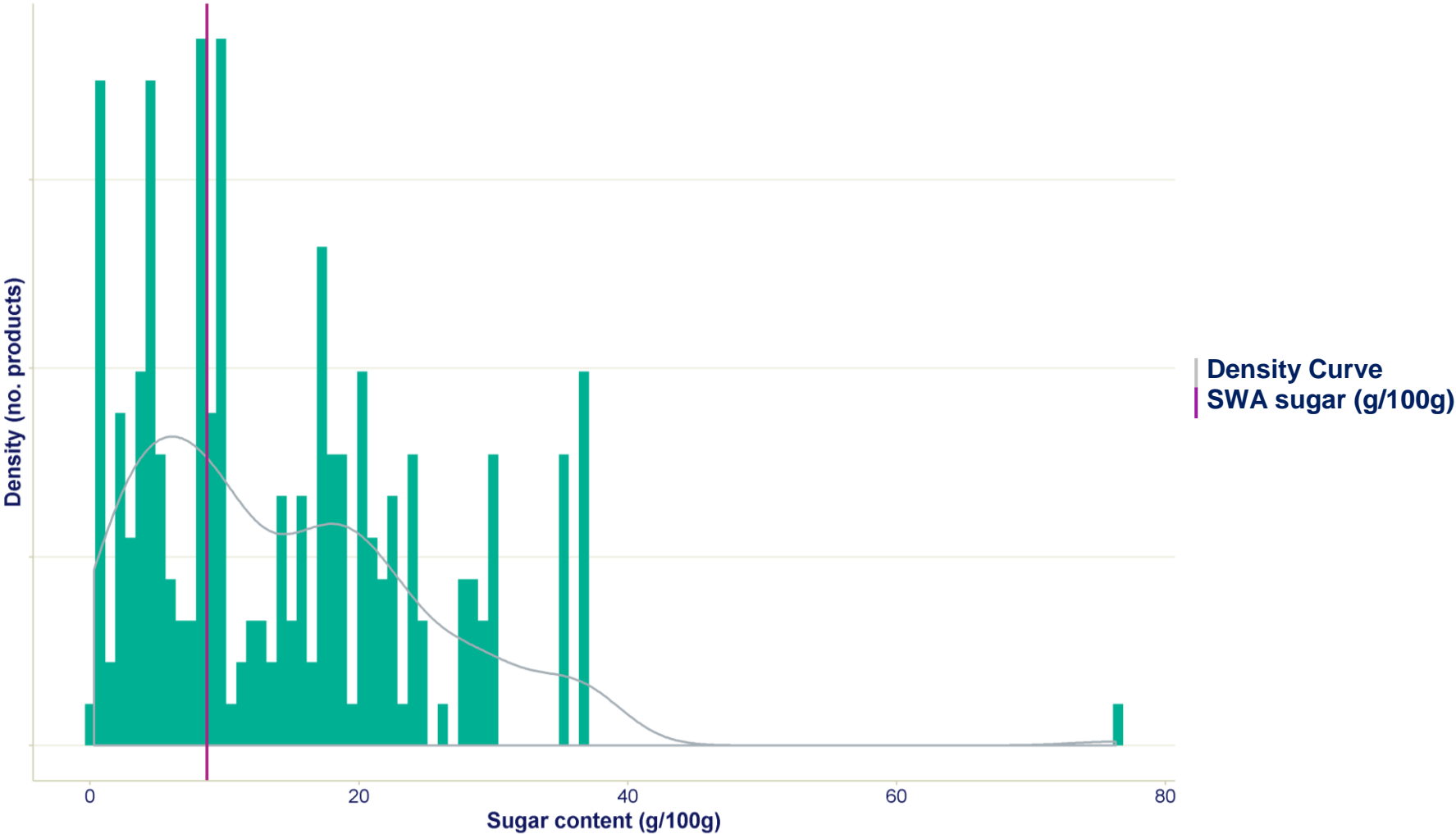
\* Purchased and total calorie sales relate to the reported volume of product consumed

 Average calorie per portion is above the guideline maximum figure (400kcal)

Figures 2 and 3 show the distribution of total sugar (g/100g) and calories per portion for cereal products purchased out of home based on available nutrition data for year 1 (2017).

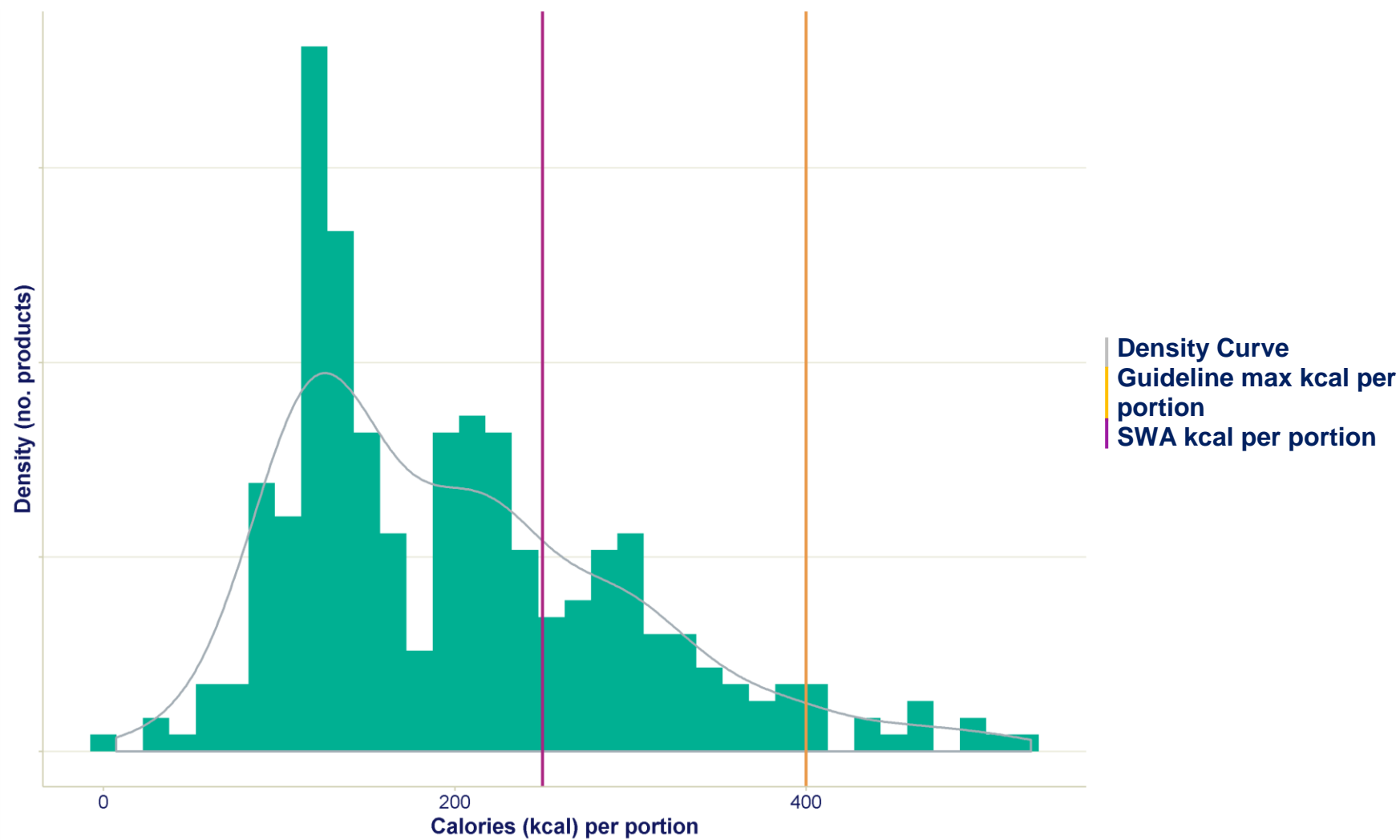


**Figure 2: Distribution of total sugar (g/100g) for breakfast cereal product types purchased\* out of home, year 1 (2017)**



\*Breakfast cereal product types purchased relate to the reported volume of product consumed

**Figure 3: Distribution of calories per portion (kcal) for breakfast cereal product types purchased\* out of home, year 1 (2017)**



\*Breakfast cereal product types purchased relate to the reported volume of product consumed

## Provisional results: cakes: analysis of average sugar levels and calories per portion from baseline to year 1

### Summary

This section presents for retailer own brand and manufacturer branded products, and limited category and business level analysis of sugar content and calories per portion between baseline and year 1 for cakes, due to restricted data (primarily because of limited information on product weight).

Over the coming months, PHE will work with the data provider and the food industry to improve the coverage of the weighed data and will consider alternative options for estimating weights in order to provide a more comprehensive assessment of retailer own brand and manufacturer branded cakes in year 2.

This section also presents for the out of home sector, category and business level analysis of sugar content and calories per portion for year 1. Changes between baseline and year 1 are not reported for this sector, due to data limitations that we are working to address for year 2.

Datasets based on consumer panel food purchase surveys have been used for these analyses. The baseline year is 2015. For year 1, data for retailers and manufacturers are for the year ending September 2017, and for the out of home sector are for the year ending August 2017. Some businesses have made reduction and reformulation changes that will not be captured within this timeframe, and they will be reported in subsequent assessments of progress.

### Cakes in the retail and manufacturing sectors

Volume sales of cakes in the Kantar Worldpanel dataset are generally presented in terms of portions or servings and information on portion size is not routinely available. In order to estimate SWA total sugar levels (g/100g) for the category, a sample of products was weighed in 2014 which was used for the baseline and a separate sample was weighed in 2017 to be used for year 1 to increase the number of products with real nutrition and volume data in the data set. PHE also asked businesses to supply weight and nutrition data for cakes and morning goods items to supplement the data set. Information received from Waitrose, Co-operative food and Lidl UK was incorporated into the dataset. Information received for Co-operative food was for year 1 only and the

baseline nutrition information was taken from the Kantar Worldpanel Dataset. Information received from Premier Foods was not used in the analysis due to the lack of product weight information.

Only products which have real nutrition information and volume in grams are used in the category analysis. As a result, analysis of the cakes sector is significantly less complete than for other food categories where volume sales are recorded in grams. For year 1, only 22% of all cake products in the Kantar Worldpanel dataset have the necessary data to be used in the category analysis. This has limited the analysis which has been produced for this category for retailer own brand and manufacturer branded products, and it has not been possible to replicate the same number and spread of tables that have been created for other categories. The results presented should be interpreted with caution. For further information on limitations to the data for cakes, see appendix 2.

**Table 1: Coverage of the cakes category at baseline (2014) and year 1 (2017) for retailers and manufacturers**

	Baseline	Year 1
Number of products available for analysis	651	686
Proportion of all products in the category that are available for analysis	18%	22%

From table 2 it can be calculated that, from the available weighed data, SWA total sugar levels increased by 5% for manufacturer branded products and by 1% for retailer own brand products between baseline and year 1. A much higher proportion of the available data is from retailers in year 1. Since retailer own brand cake products have lower average sugar levels than manufacturer branded products a combined figure for year 1 would not be comparable with the baseline average so this has not been presented.

**Table 2: Sales weighted average total sugar levels (g/100g) and average calories per portion (kcal) for single serve cakes for manufacturers and retailers at baseline (2014) and year 1 (2017)**

	Baseline		Year 1	
	Manufacturers	Retailers	Manufacturers	Retailers
Market share (% volume sales)	48%	52%	16%	84%
SWA total sugar content (g/100g)	40.3g	33.0g	42.3g	33.2g
SWA calories per portion (for single serve products)	132 kcal	133 kcal	124 kcal	135 kcal

### Analysis by business (like for like products)

Due to the coverage of the cakes sector being relatively limited in both the baseline year and year 1, comparisons by business have been restricted to products which are available in both years (with a matched product code in the Kantar Worldpanel dataset) and for businesses with at least 5 matching products appearing in both years. Only 1 manufacturer and 8 retailers fit that criteria.

Of the businesses where sufficient matched data are available, 3 businesses have seen a noticeable reduction in their SWA total sugar value and 2 other businesses also achieved a reduction (table 3). Three of the businesses have SWA sugar levels at or below the guideline for year 1. We have been made aware that some businesses have future reductions in the pipeline or have completed reformulation which has not been captured in the datasets (see case studies in appendix 4).

**Table 3: Percentage change in SWA total sugar by manufacturer and retailer (like for like products only); listed in alphabetical order by business**

Business	% change in SWA (Year 1 vs Baseline)
Aldi Stores Ltd	Data not comparable**
Asda Stores Ltd	-22.9%
Cooperative food	-4.5%
J Sainsbury's	0.6%
Marks and Spencer	No permission
Morrisons Ltd	-1.1%
Premier foods	0.0%
Tesco Food Stores Ltd	4.0%
Waitrose Ltd	-27.0%

 SWA sugar value is at or below the combined in-home guideline figure for year 1 (34.7g)

\*\*No comparable data for baseline and year 1 and no permission given to publish SWA related information

For the businesses that are in table 3, the case studies presented in table 4 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 4: Case study summary for the retailers and manufacturers highlighted in Table 3**

Timeframe	Case study summary	Case study reference
Between Baseline to Year 1	Between Baseline to Year 1 <b>Asda Stores Ltd</b> reformulated the recipes and reduced the sugar content of five in-store bakery doughnuts.	Case study 1
Between Baseline to Year 1	Between Baseline to Year 1 <b>Premier Foods</b> reformulated the recipe of Mr Kipling Vienesse Whirls achieving calorie and sugar reduction.	Case study 31
Post-Year 1	Post-Year 1 <b>Morrisons Ltd</b> reformulated the recipe and reduced the sugar content of eleven bought in cakes.	Case study 27

For each of the businesses in table 3, table 5 shows the brand with the highest sugar sales in year 1 (of the brands where matched data from baseline are available). Average sugar content has reduced across the top brands for 5 businesses.

**Table 5: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) by manufacturer and retailer (like for like products only listed in alphabetical order by business)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average sugar content of top brand(g/100g)
Aldi Stores Ltd	Aldi Small Swiss Rolls	45.0 *
Asda Stores Ltd	Asda Extra Special Large Whole Cakes	34.0 ↓
Cooperative food	Co-op Sponge Sandwich	36.2 ↑
J Sainsbury's	Sainsbury's Taste The Difference Large Whole Cakes	32.0 ↓
Marks and Spencer	M&S Large Swiss Roll	39.7 ↓
Morrisons Ltd	Morrisons Slab/Cut Cake	35.1 -
Premier foods	Mr Kipling Small Cakes	46.6 -
Tesco Food Stores Ltd	Tesco Small Cakes	29.1 ↓
Waitrose Ltd	Waitrose Essential Small Cakes	23.7 ↓

*	Comparable data not available
-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

## Cakes in the out of home sector

The SWA total sugar level for cakes purchased in the out of home sector was 27.1g per 100g in year 1. Purchases (volume sales) are based on the reported volume of product consumed. The SWA calories per portion was 444 kcal. This can not be directly compared with the figures published for 2015 due to a change in data supplier and improved data coverage. Further information is provided in appendix 2.

**Table 6: Cakes: updated baseline statistics for out of home food, 2017**

	2017 (updated Baseline)
Baseline sales weighted average (SWA) total sugar content (g/100g)	27.1g
Range of total sugar content across products in category (min-max, g/100g)	1g – 104.9g
SWA calories per portion	444 kcal

Table 7 shows the top 10 sellers of cakes out of home and the SWA total sugar levels and portion sizes where they are available. The number of products used in the SWA calculation is shown in the table. Nutrition information is only available for a limited number of businesses and no information is available for 2015 and hence only 2017 data are shown.

**Table 7: Top 10 sellers of cakes\* out of home in year 1 (2017), with nutrition data at year 1 (2017) where available, listed in alphabetical order by business**

Business	2017			
	sugar (g/100g)		calories per portion	
	SWA	number of products	SWA	number of products
Burger King	n/a	n/a	490	7
Caffè Nero	32.2	46	377	46
Costa Coffee	34.5	59	399	59
Greggs	28.7	37	278	37
Harvester	39.1	2	1175	3
JD Wetherspoon	n/a	n/a	752	3
McDonald's	29.5	12	281	12
Starbucks	29.9	33	405	33
Tesco Food Stores Ltd Cafe	n/a	n/a	n/a	n/a
Tesco Food Stores Ltd (Food to Go section)	n/a	n/a	n/a	n/a

n/a – Nutrition information not available in the OOH dataset, therefore SWA calculation is not possible.

\*Top 10 sellers of cakes have been ranked based on reported volume of product type consumed from each business.

For the businesses that are in table 7, the case studies presented in table 8 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 8: Case study summary for the top businesses highlighted in Table 7**

Timeframe	Case study summary	Case study reference
Pre-Baseline, between Baseline to Year1 and Post-Year 1	Pre-Baseline <b>Starbucks</b> reformulated Chocolate Brownie, between Baseline to Year1 Carrot Cake was reformulated and Post-Year1 five other cakes were reformulated.	Case study 36
Between Baseline to Year1	Between Baseline to Year1 <b>Costa Coffee</b> reformulated and reduced the sugar content of Raspberry Almond Finger, Blueberry Muffin and Chocolate Tiffin.	Case study 11

Table 9 shows the top 10 cake product types purchased in the out of home sector in terms of estimated sugar sales. Three businesses had product types at or below the average sugar value for baseline in year 1.

**Table 9: Average sugar levels (g/100g) for the top 10 cakes product types purchased\* out of home, (by total sugar sales\* in year 1), listed in alphabetical order by business**

Business	Top sugar contributing product type (by total sugar sales in Year 1)	Average sugar content of top contributing product type (g/100g)
Costa Coffee	Brownie	39.2
Costa Coffee	Cake	32.4
Costa Coffee	Muffin sweet	34.1
Greggs	Doughnut	24.7
Harvester	Cake	39.1
McDonald's	Cake	58.6
McDonald's	Muffin sweet	25.1
Starbucks	Brownie	36.6
Starbucks	Cake	31.8
Starbucks	Muffin sweet	26.8

\*Purchased and total sugar sales relate to the reported volume of product consumed


 Average sugar value is at or below the OOH updated baseline (2017) figure (27.1g)

Table 10 shows the top 10 cake product types purchased out of home in terms of total calories, listed alphabetically by business. All but 1 of the top 10 cake product types based on total calorie sales have an average portion size above the guideline maximum of 325 kcal.



**Table 10: Average calories per portion (kcal) for the top 10 cake product types purchased\* out of home (by total calorie sales\* in year 1), listed in alphabetical order**

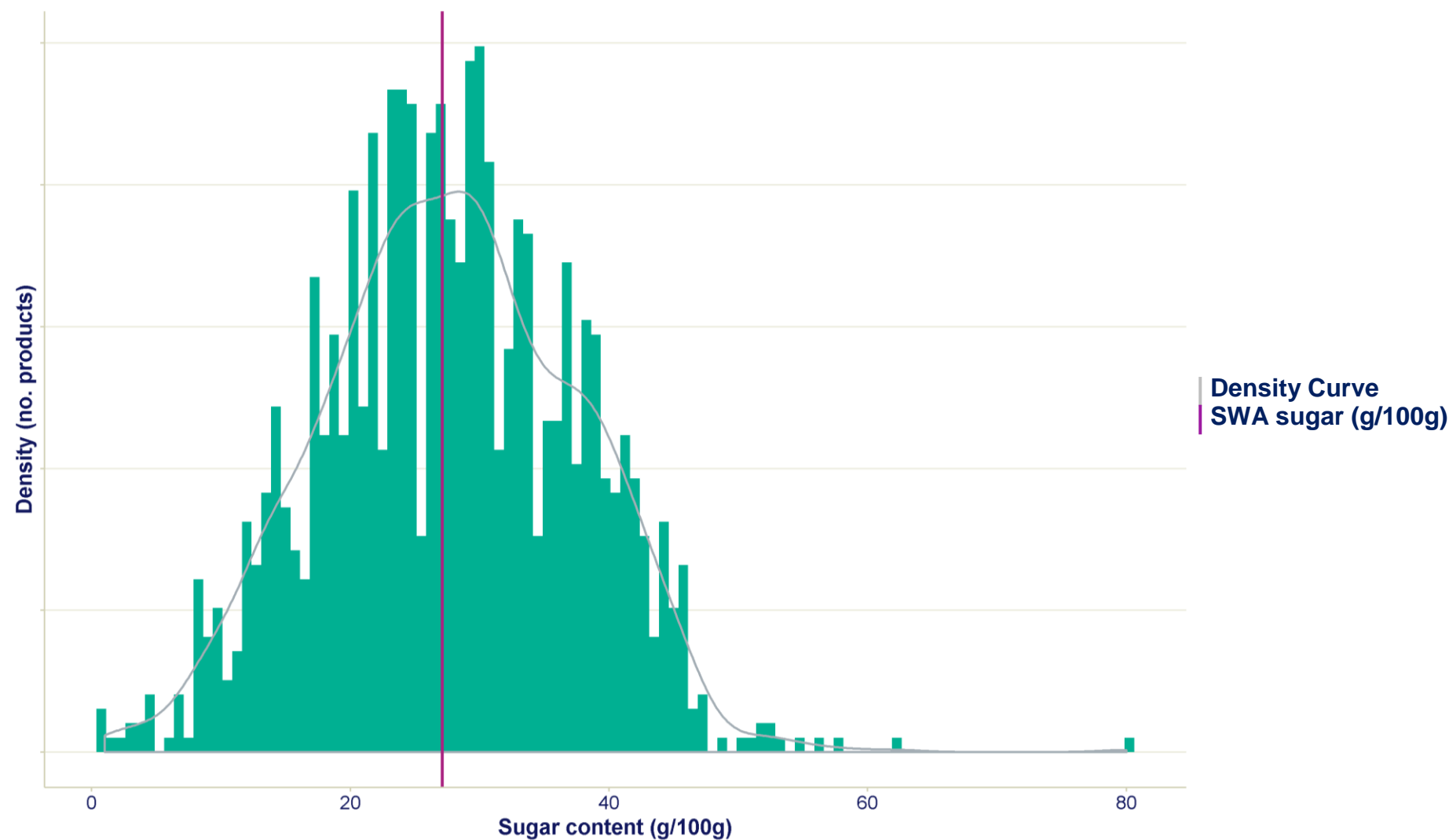
Business	Top calorie contributing product type (by total calorie sales in Year 1)	Average calorie content of top contributing product type (kcal per portion)
Caffè Nero	Muffin sweet	439
Costa Coffee	Brownie	355
Costa Coffee	Cake	379
Costa Coffee	Muffin sweet	453
Greggs	Doughnut	266
JD Wetherspoon	Cake	696
McDonald's	Muffin sweet	388
Starbucks	Brownie	334
Starbucks	Cake	404
Starbucks	Muffin sweet	447

\*Purchased and total calorie sales relate to the reported volume of product consumed

Average calories per portion is above the guideline maximum figure (325kcal)

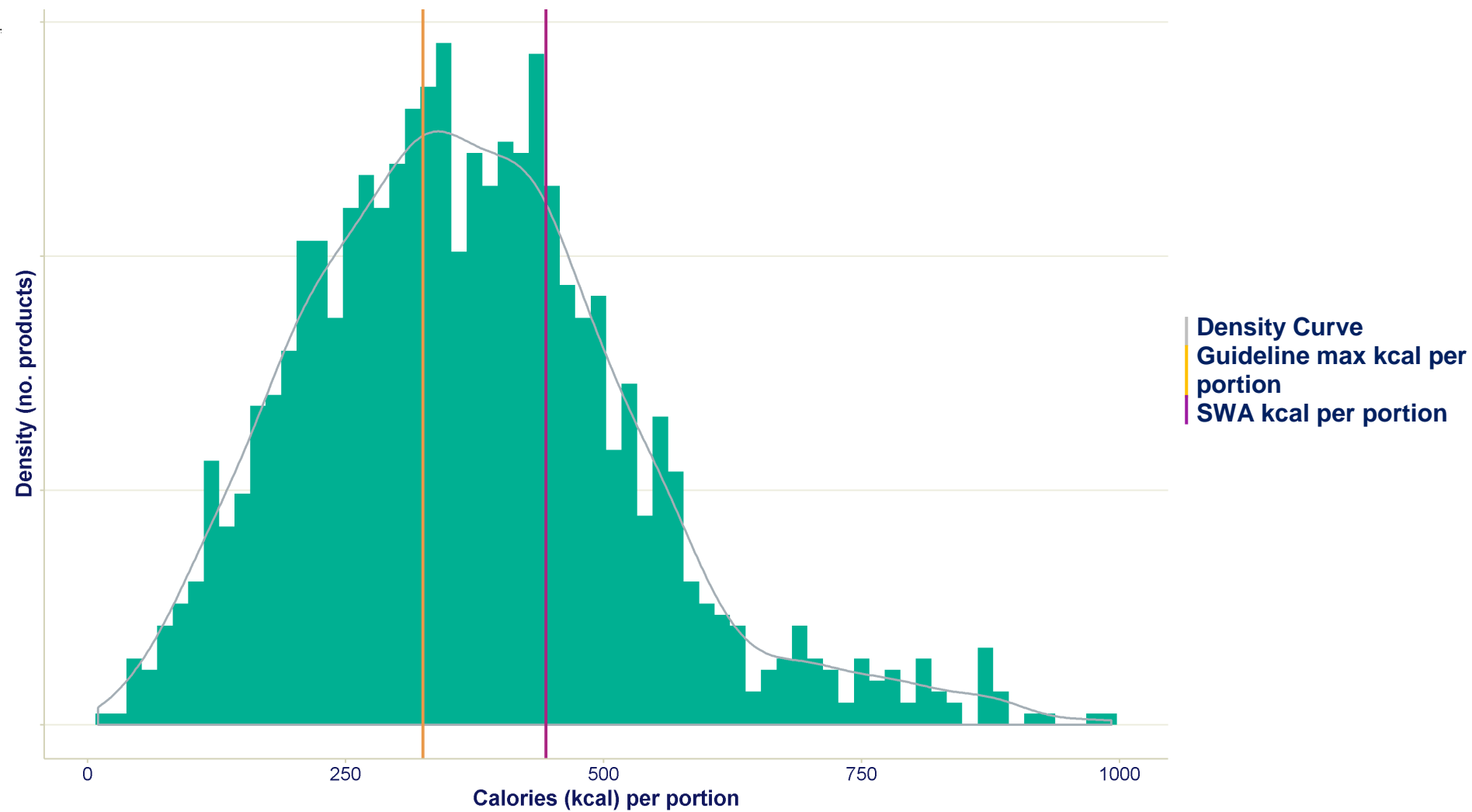
Figures 1 and 2 show the distribution of total sugar (g/100g) and calories per portion for cakes purchased out of home based on the available nutrition data for year 1 (2017).

Figure 1: Distribution of total sugar (g/100g) for cake product types purchased\* out of home, year 1 (2017)



\*Cake product types purchased relate to the reported volume of product consumed

**Figure 2: Distribution of calories per portion (kcal) for cake product types purchased\* out of home, year 1 (2017)**



# Chocolate confectionery: analysis of average sugar levels and calories per portion from baseline to year 1

## Summary

This section presents for retailer own brand and manufacturer branded products, category and business level analysis of sugar content and calories per portion between baseline and year 1 for chocolate confectionery. Overall there has been no change in SWA total sugar levels (g/100g) and a 3% reduction in SWA calories per portion.

Out of home results are not available for chocolate confectionery as the sales and nutrition data available for year 1 for confectionery are not sufficiently comparable to produce robust results. This is something PHE will look to address for the next progress report.

Datasets based on consumer panel food purchase surveys have been used for these analyses. The baseline year is 2015. For year 1, data for retailers and manufacturers are for the year ending September 2017, and for the out of home sector are for the year ending August 2017. Some businesses have made reduction and reformulation changes that will not be captured within this timeframe, and they will be reported in subsequent assessments of progress.

## Chocolate confectionery in the retail and manufacturing sectors

The analysis in this section is based on chocolate confectionery products with real nutrition information in the retail and manufacturing sector taken from Kantar Worldpanel datasets. In 2017 this covers 81% of all the chocolate confectionery products in the dataset and 96% of the volume of chocolate confectionery products sold from retailer own brand and manufacturer branded products.

Table 1 shows that SWA total sugar levels (g/100g) in retailer own brand and manufacturer branded chocolate confectionery combined remained largely unchanged between baseline and year 1. SWA calories per portion fell by 3% compared with a revised baseline figure of 174 kcal (see the method section of the report for further information on the revised baseline).

**Table 1: Sales weighted average total sugar levels (g/100g), ranges of total sugar (g/100g) and average single serve calories per portion (kcal) for chocolate confectionery at baseline (2015) and year 1 (2017) for retailers and manufacturers combined**

	Baseline	Year 1	% change
Number of products with real nutrition information	2608	2706	
Proportion of all products in the category that have real nutrition information	96%	81%	
Proportion of volume sales in the category with real nutrition information	97%	96%	
Retailer and manufacturer sales weighted average (SWA) total sugar content (g/100g)	54.4g	54.3g	0%
Range of total sugar content across products in category (min-max, g/100g)	1.2g - 81.5g	0.4g – 83.3g	
Range of total sugar content in top 20 products by volume sugar sales (min-max, g/100g)	42.5g – 68.8g	45g – 66.5g	
SWA calories per portion (for single serve products)	178 kcal 174 kcal (revised)	168 kcal	-3%

From table 2 it can be calculated that SWA total sugar levels (g/100g) reduced by 1% between the baseline and year 1 for retailers and there was no change for manufacturers. From the revised baselines, average calories per portion fell by 4% for chocolate confectionery manufacturers and increased by 1% for retailers.

**Table 2: Sales weighted average total sugar levels (g/100g) and average calories per portion (kcal) for chocolate confectionery for manufacturers and retailers at baseline (2015) and year 1 (2017)**


	Baseline		Year 1	
	Manufacturers	Retailers	Manufacturers	Retailers
Market share (% volume sales)	85%	15%	84%	16%
SWA total sugar content (g/100g)	54.9g	51.4g	54.9g	51.0g
SWA calories per portion (for single serve products)	178 kcal 174 kcal (revised)	180 kcal 176 kcal (revised)	167 kcal	178 kcal

## Analysis by company and brand within the manufacturer sector

Table 3 shows the percentage change in SWA total sugar per 100g for the top 10 chocolate confectionery manufacturers based on volume sales. Across the category only small changes were observed. Three manufacturers had a SWA total sugar level at or below the guideline for year 1. Some businesses have future reductions in the pipeline or have completed reformulation which has not been captured in the datasets (please see case studies in appendix 4).

**Table 3: Percentage change in SWA total sugar for the top 10 manufacturers by market share (listed in alphabetical order by business)**

Business	% change in SWA (Year 1 vs Baseline)
<b>Carambar+Co(Eurazeo)</b>	No response
<b>Ferrero Ltd</b>	No permission
<b>Guylian Ltd</b>	-0.4%
<b>J W Thornton Ltd</b>	No permission
<b>Kinnerton Confectionery</b>	3.5%
<b>Lindt &amp; Sprungli UK Ltd</b>	-1.2%
<b>Mars Chocolate UK</b>	0.0%
<b>Mondelez</b>	0.5%
<b>Nestlé UK and Ireland</b>	0.2%
<b>Storck</b>	0.2%

 SWA sugar value is at or below the combined in-home guideline figure for Year 1 (51.7g)

For the businesses that are in table 3, the case studies presented in table 4 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 4: Case study summary for the top manufacturers highlighted in Table 3**

Timeframe	Case study summary	Case study reference
Pre-Baseline	Pre-Baseline <b>Kinnerton Confectionery</b> completed portion size reduction in their Milk Chocolate Easter Egg.	Case study 20
Pre-Baseline	Pre-Baseline <b>Mars Chocolate Confectionery</b> completed portion size reduction in four standard size chocolate bars.	Case study 23
Between Baseline to Year 1, and Post-Year 1	Between Baseline to Year 1 and Post-Year 1 <b>Mondelez</b> completed portion size reduction in ten chocolate bar multipacks.	Case study 26
Pre-Baseline, and Between Baseline to Year 1	Pre-Baseline <b>Nestlé UK and Ireland</b> completed portion size reduction and from Baseline to Year 1 the recipe of Milkybar was reformulated.	Case study 29

For each of the top 10 manufacturers in table 3, table 5 shows the brand with the highest sugar sales in year 1. In all cases, the sugar content of the top contributing brand was unchanged between baseline and year 1.

**Table 5: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 10 manufacturers (listed in alphabetical order)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)
Carambar+Co(Eurazeo)	Terry's Milk Chocolate Orange	58.5 -
Ferrero Ltd	Ferrero Rocher	39.9 -
Guylian Ltd	Guylian Chocolate Seashells	50.0 -
J W Thornton Ltd	Thorntons Classics Assortment	52.3 -
Kinnerton Confectionery	Kinnerton Advent Calendar	60.0 -
Lindt & Sprungli UK Ltd	Lindt Lindor Truffles	43.0 -
Mars Chocolate UK	Mars Celebrations	55.4 -
Mondelez	Cadbury Dairy Milk Fairtrade	56.0 -
Nestlé UK and Ireland	Quality Street Assortments	58.4 -
Storck	Toffifee	48.5 -


-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

Table 6 shows the top 20 chocolate confectionery brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt. In most cases there has been no change in nutrient composition. Three confectionery brands have average sugar levels at or below the guideline for year 1 and 2 brands have average sugar levels within 1% of the guideline for year 1.

**Table 6: Sugar content and changes in other nutrients for top 20 chocolate confectionery brands by total sugar sales in year 1 (listed in alphabetical order)**

Brand	Sugar (g/100g)	Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
After Eight Mints	66.2 -	-	-	↓
Bounty Milk	48.0 -	-	-	-
Cadbury Dairy Milk Giant Buttons Fairtrade	56.0 -	-	-	-
Cadbury Crunchie	65.0 -	-	-	-
Cadbury Dairy Milk Fairtrade	56.0 -	-	-	↑
Cadbury Double Decker	54.8 ↑	-	-	-
Cadbury Heroes	56.0 -	-	-	-
Cadbury Roses Assortments	56.0 -	-	-	-
Cadbury Wispa	52.1 -	-	-	-
Galaxy Milk	55.4 -	-	-	-
Galaxy Minstrels	68.0 -	-	-	↑
KitKat Chunky	52.7 ↓	-	-	↑
M & M's Peanut	53.5 -	-	-	↓
Maltesers Fairtrade	51.8 -	-	-	-
Mars Bar Fairtrade	59.9 -	-	-	-
Mars Celebrations	55.4 -	-	-	-
Quality Street Assortments	58.4 -	-	-	-
Snickers	46.6 -	-	-	-
Terry's Milk Chocolate Orange	58.5 -	-	-	-
Twix	48.4 -	-	-	-

-	No change
↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)

 Average sugar value of brand is at or below the combined in-home guideline figure for year 1 (51.7g)

 Average sugar value of brand is above the combined in-home guideline figure for year 1 by less than 1%

## Analysis by retailer and brand within the retail sector


Table 7 shows that by retailer there have been reductions of around 4% in SWA total sugar levels for 3 retailers and a reduction for another retailer. Increases of over 2% in SWA total sugar levels were seen for 2 retailers and an increase in an additional retailer. However, for 5



out of the top ten retailers, the SWA sugar level per 100g is below the guideline for the category for year 1.

**Table 7: Percentage change in SWA sugar for the top 10 retailers by market share (listed in alphabetical order by business)**

Business	% change in SWA (Year 1 vs Baseline)
<b>Aldi Stores Ltd</b>	Data not comparable**
<b>Asda Stores Ltd</b>	2.8%
<b>Co-operative food</b>	-3.9%
<b>J Sainsbury's</b>	-3.8%
<b>Lidl UK GMBH</b>	Data not comparable
<b>Marks and Spencer</b>	No permission
<b>Morrisons Ltd</b>	0.2%
<b>Tesco Food Stores Ltd</b>	-0.2%
<b>Waitrose Ltd</b>	2.3%
<b>Wilko Retail Ltd</b>	-4.0%

 SWA sugar value is at or below the combined in-home guideline figure for year 1 (51.7g)

\*\*No comparable data for baseline and year 1 and no permission given to publish SWA related information

For the businesses that are in table 7, the case studies presented in table 8 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 8: Case study summary for the top retailers highlighted in Table 7**

Timeframe	Case study summary	Case Study reference
Between Baseline to Year 1	Between baseline to year 1 <b>Lidl UK GMBH</b> have reduced the pack size of the three variants of Mini Chocolate bars.	Case study 22

For each of the top 10 retailers in table 7, table 9 shows the brand with the highest sugar sales in year 1. Five of the top contributing brands have shown no change in sugar content.

**Table 9: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 10 retailers (listed in alphabetical order by business)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)	
Aldi Stores Ltd	Titan	57.0	*
Asda Stores Ltd	Asda Smart Price Milk Chocolate	63.0	↑
Co-operative food	Co-op Fairtrade Milk Chocolate	52.0	-
J Sainsbury's	Sainsbury' By Chocolate Treats	51.5	↓
Lidl UK GMBH	Fin Carre Milk Chocolate	55.5	*
Marks and Spencer	M&S Swiss Truffle Assortment	43.7	-
Morrisons Ltd	Morrisons Mega Mix	54.2	*
Tesco Food Stores Ltd	Tesco Value Milk Chocolate	62.0	-
Waitrose Ltd	Waitrose Chocolate Selection	57.2	-
Wilko Retail Ltd	Wilko Chocolate Peanuts	75.3	-

*	Comparable data not available
-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

Table 10 shows the top 20 chocolate confectionery retailer brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt. In the majority of cases, where comparable data are available, there has been no change in nutrition composition. Six of the retailer brands are at or below the guideline for average sugar levels for year 1.

**Table 10: Sugar content and changes in other nutrients for top 20 chocolate confectionery retailer brands by total sugar sales in 2017 (listed in alphabetical order)**

Brand	Sugar (g/100g)	Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Asda Smart Price Milk Choc	63.0 ↑	-	-	↓
Dairy Fine Fruit+Nut* (Aldi)	47.7			
Dairy Fine Milk* (Aldi)	52.3			
Dairy Fine Racer Bar* (Aldi)	42.5			
Fin Carre Choc Raisins* (Lidl)	64.2			
Lidl Mr Choc*	52.5			
Morrisons Savers Dark Choc	55.6 -	-	-	-
Morrisons Savers Milk Choc	62.3 -	-	-	↓
Morrisons Mega Mix*	54.2			
Mr Choc Caramel Bar* (Lidl)	57.0			
Mr Choc Peanut Choco Bar* (Lidl)	42.5			
Racer* (Aldi)	42.5			
Sainsbury's By Chocolate Treats	51.5 ↓	↑	-	-
Sainsbury's By Milk Choc Egg	57.8 -	-	-	↓
Tesco Chocolate Raisins	63.4 ↑	↑	-	↑
Tesco Crazy Caramel Bar	55.7 -	-	-	-
Tesco Value Milk Choc	62.0 -	-	-	-
Tesco Value Plain Choc	51.0 -	-	-	-
Tesco Value White Choc	66.0 -	-	-	-
Titan* (Aldi)	57.0			

*	Comparable data not available
---	-------------------------------

-	No change
---	-----------

↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
---	---

↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)
---	---

	Average sugar value of brand is at or below the combined in-home guideline figure for Year 1 (51.7g)
--	--

## Single serve product analysis across retailers and manufacturers

Table 11 shows calories per portion in the baseline year and year 1 for the top 20 selling single serve chocolate confectionery products. Six of the top 20 selling products are showing reductions of up to 2% in calories per portion and 5 products are showing increases.

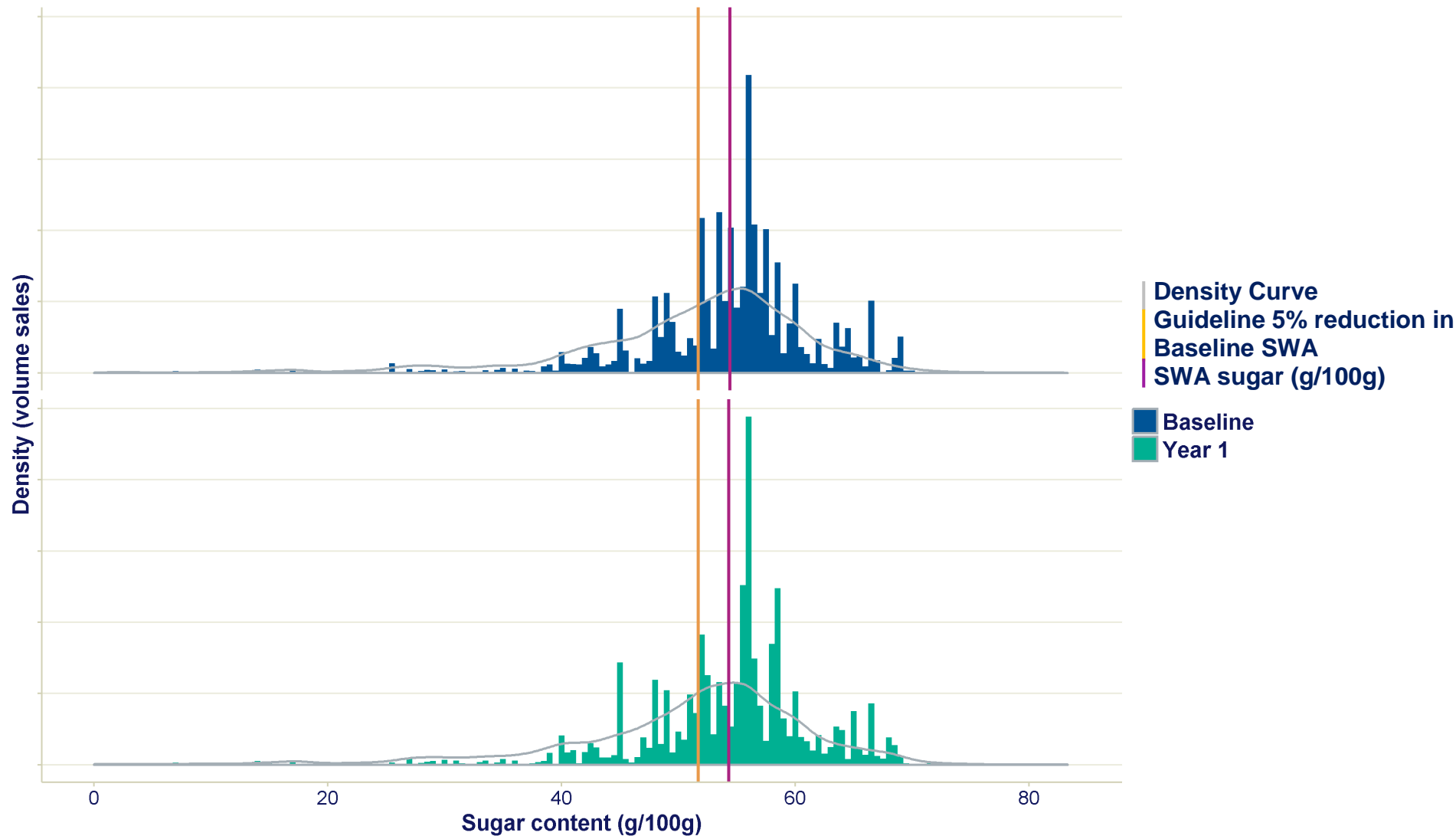
**Table 11: Calories per portion at baseline and year 1 for the top 20 single serve chocolate confectionery products across retailers and manufacturers based on total calorie sales in year 1 (listed in alphabetical order)**

Product	Baseline Calories per portion (kcal)	Year 1 Calories per portion (kcal)	Change in calories per portion
Bounty	278	278	0%
Cadbury Creme Egg	173	173	0%
Cadbury Crunchie	150	149	-1%
Cadbury Dairy Milk	191	192	1%
Cadbury Double Decker	251	252	0%
Cadbury Fudge	113	114	1%
Cadbury Picnic	230	232	1%
Cadbury Timeout Wafer	119	118	-1%
Cadbury Twirl Twin Bars	182	180	-1%
Cadbury Wispa	165	166	1%
Dairy Fine Titan (Aldi)	183	183	0%
Fry's Turkish Delight	196	196	0%
Galaxy Ripple	175	175	0%
Mars	177	177	0%
Nestlé KitKat 4 Original	245	241	-2%
Nestlé KitKat Chunky	206	202	-2%
Nestlé Rolo	248	249	0%
Nestlé Toffee Crisp	195	198	2%
Snickers Bars	213	213	0%
Twix Fingers	114	113	-1%

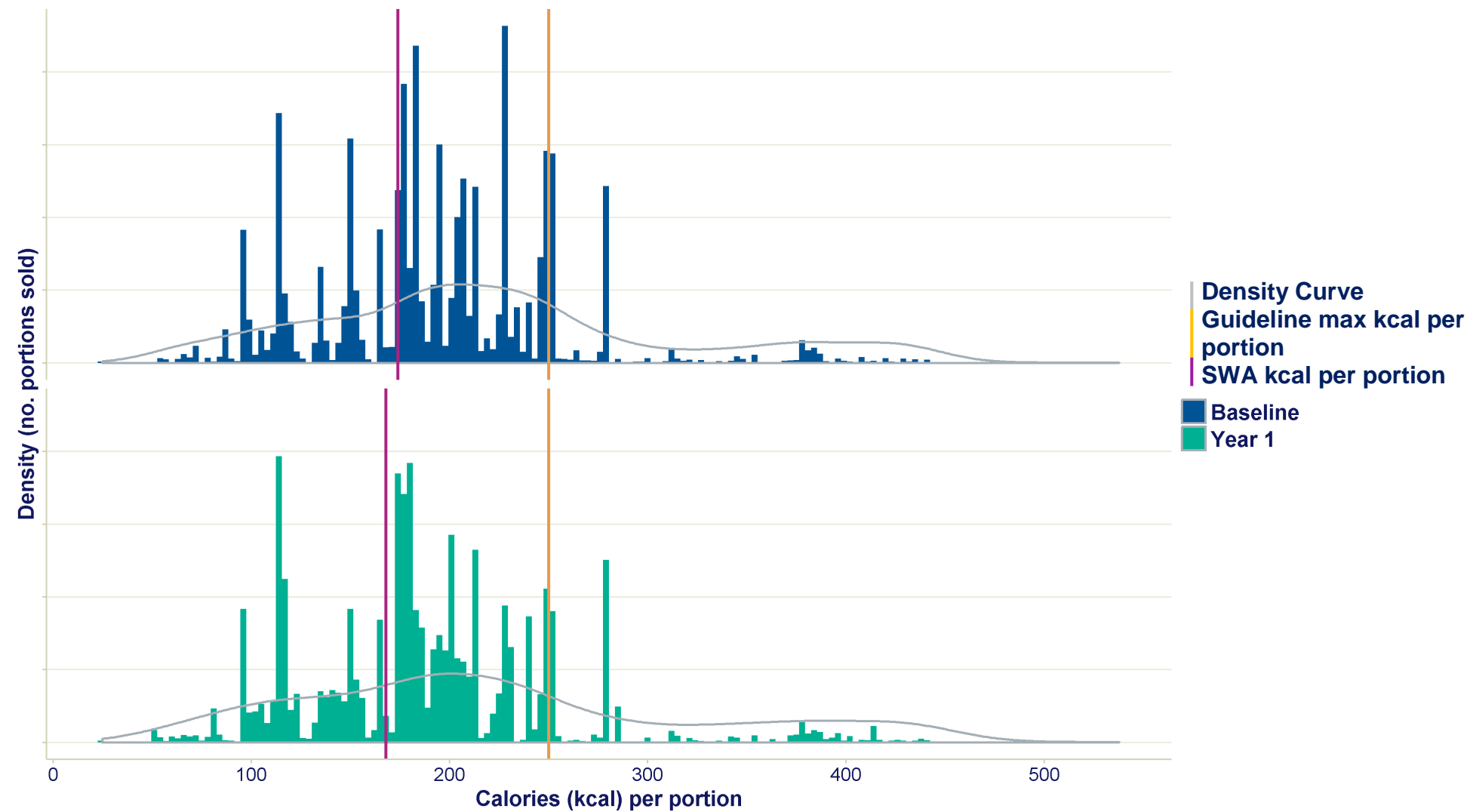
Figures 1 and 2 show the distribution of total sugar (g/100g) and calories per portion for all chocolate confectionery products with real nutrition information in the Kantar Worldpanel datasets at baseline and year 1.

Out of home results are not available for chocolate confectionery as the sales and nutrition data available for year 1 for confectionery are not sufficiently comparable to produce robust results. This is something PHE will look to address for the next progress report.

Figure 1: Distribution of total sugar (g/100g) for retailer and manufacturer chocolate confectionery



**Figure 2: Distribution of calories per portion (kcal) for single serve retailer and manufacturer chocolate confectionery**



# Provisional results: ice cream, lollies and sorbets: analysis of average sugar levels and calories per portion from baseline to year 1

## Summary

This section presents for retailer own brand and manufacturer branded products, provisional category and business level analysis of sugar content and calories per portion between baseline and year 1 for ice cream, lollies and sorbet. Overall, there has been a 2% reduction in SWA total sugar levels (g/100g) and a 7% reduction in SWA calories per portion.

This section also presents for the out of home sector, category and business level analysis of sugar content and calories per portion for year 1. Changes between baseline and year 1 are not reported for this sector, due to data limitations that we are working to address for year 2.

These analyses are provisional due to uncertainties in the reporting of nutrition content which can be provided in either per 100g or per 100ml; the conversion between litres and kilograms is based on average conversion factors across ice cream types and not a precise conversion for each individual product. PHE will work with manufacturers, retailers and the data provider to improve product level information for year 2. This may result in revised baseline and year 1 figures being published.

Datasets based on consumer panel food purchase surveys have been used for these analyses. The baseline year is 2015. For year 1, data for retailers and manufacturers are for the year ending September 2017, and for the out of home sector are for the year ending August 2017. Some businesses have made reduction and reformulation changes that will not be captured within this timeframe, and they will be reported in subsequent assessments of progress.

## Ice creams, lollies and sorbets in the retail and manufacturing sectors

The analysis in this section is based on ice cream, lolly and sorbet products with real nutrition information in the retail and manufacturing sector taken from Kantar Worldpanel datasets. In 2017 this covered approximately 78% of all the ice cream, lollies and sorbet products in the dataset and 90% of the volume of ice cream, lollies and sorbets sold for retailer own brand and manufacturer branded products.

Average conversion factors provided by Froneri have been applied to ice cream, lollies and sorbet products to convert volume sales in litres to kilograms, and nutrition information provided per 100ml to per 100g. Products were grouped into the 8 sub-categories provided below, each with its own conversion factor (see table 1). These conversion factors are to divide by when converting litres into kilograms.

**Table 1: List of product groups and conversion factors used for ice creams, lollies and sorbets**

Product group	Conversion factor used
Tubs/Soft Scoop	2.2
Premium	1.5
Lollies	1.0
Sorbet	1.4
Frozen yogurt	1.5
Gelato	1.3
Cornish	1.9
Other	1.5

For ice cream, lollies and sorbets, Kantar Worldpanel have undertaken fieldwork and found that there is a mix across the market in reporting nutrition information per 100g, per 100ml or on both bases. Most large manufacturers and retailers report per 100g. To be consistent with the approach taken for the baseline, PHE analyses have assumed that nutrition information is presented per 100g for all ice cream businesses except for Asda and Morrisons. PHE intend to test this assumption working with manufacturers to cross-match product information over the coming months. If our working assumption proves to be overly simplistic we will publish revised baseline and year 1 estimates in 2019. The results presented in this report should be considered provisional until that validation exercise is complete.

Table 2 shows that sales weighted average (SWA) total sugar levels (g/100g) in retailer own brand and manufacturer branded ice creams, lollies and sorbets combined reduced by 2% between baseline and year 1. There was no change in the SWA when it is calculated in terms of g/100ml. This apparent anomaly occurs because the conversion between litres and kilograms uses an average conversion factor across each ice cream type and not a precise conversion factor for each individual product. If there is a change between baseline and year 1 in the proportion of ice creams, lollies and sorbets falling into the 8 sub-categories listed above this will mean that the percentage change in grams and ml will not necessarily be the same.

SWA calories per portion reduced by 7% compared with a revised baseline figure of 151 calories per portion (see the summary results section of the report for further information on revised baselines).



**Table 2: Sales weighted average total sugar levels (g/100g), ranges of total sugar (g/100g and g/100ml) and average single serve calories per portion (kcal) for ice creams, lollies and sorbets at baseline (2015) and year 1 (2017) for retailers and manufacturers combined**

	Baseline	Year 1	% change
Number of products with real nutrition information	1030	1039	
Proportion of all products in the category that have real nutrition information	71%	78%	
Proportion of volume sales in the category with real nutrition information	89%	90%	
Retailer and manufacturer sales weighted average (SWA) total sugar content g/100g (g/100ml)	22.9g (13.9g)	22.5g (13.9g)	-2% (0%)
Range of total sugar content across products in category (min-max, g/100g)	1.8g – 49.7g	0.4g - 49.7g	
Range of total sugar content in top 20 products by volume sugar sales (min-max, g/100g)	17g – 31g	12g – 31.9g	
SWA calories per portion (for single serve products)	145 kcal 151 kcal (revised)	140 kcal	-7%

From table 3 it can be calculated that for manufacturer branded products, SWA total sugar levels reduced by 4% (g/100g), and compared with a revised baseline figure calories per portion fell by 7% for ice cream, lolly and sorbet products. For retailer own brand products there was no discernable change in average sugar levels whilst average calories per portion fell by 8% (when compared with a revised baseline).

**Table 3: Sales weighted average total sugar levels (g/100g and g/100ml) and average calories per portion (kcal) for single serve ice creams, lollies and sorbets for manufacturers and retailers at baseline (2015) and year 1 (2017)**

	Baseline		Year 1	
	Manufacturers	Retailers	Manufacturers	Retailers
Market share (% volume sales)	48%	52%	48%	52%
SWA total sugar content g /100g (g/100ml)	22.9g (14.1g)	22.9g (13.8g)	22.0g (13.8g)	22.9g (14.0g)
SWA calories per portion (for single serve products)	147 kcal 147 kcal (revised)	144 kcal 155 kcal (revised)	136 kcal	143 kcal


### Analysis by company and brand within the manufacturing sector

Table 4 shows the percentage change in SWA total sugar levels for the top 10 ice cream, lolly and sorbet manufacturers based on volume sales. Three of the top 10 manufacturers saw reductions of at least 2% in their SWA sugar levels.

For 2 businesses comparable data for the baseline year is not available. In future progress reports, products manufactured by Fredericks Dairies Ltd, Kelly's Ltd, Richmond Ice Cream Ltd and Yoo Moo Ltd will be included under their parent brand of Froneri. Products which were previously manufactured by Vandemoortele (UK) Ltd became part of the wider Danone UK brand, and therefore will be included under the brand of Danone UK in future reports. In this report we have reported this brand as Alpro UK Ltd at Danone's request. Some businesses have future reductions in the pipeline or have completed reformulation which has not been captured in the datasets (see case studies in appendix 4).

**Table 4: Percentage change in SWA total sugar for the top 10 manufacturers by market share (listed in alphabetical order by business)**

Business	% change in SWA (Year 1 vs Baseline)
<b>Alpro (UK) Ltd</b>	Data not comparable
<b>Frank's Ice Cream Ltd</b>	No response
<b>Fredericks Dairies Ltd (Froneri)</b>	0.5%
<b>General Mills Inc</b>	Data not comparable
<b>Kelly's Ltd (Froneri)</b>	1.4%
<b>Mackie's Aberdeen Dairies</b>	1.0%
<b>Mars Chocolate UK</b>	-2.4%
<b>Richmond Ice Cream Ltd (Froneri)</b>	1.8%
<b>Unilever UK</b>	-5.0%
<b>Yoo Moo Ltd (Froneri)</b>	-7.4%

 SWA sugar value is at or below the combined in-home guideline figure for year 1 (21.8g)

For the businesses that are in table 4, the case studies presented in table 5 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 5: Case study summary for the top manufacturers highlighted in Table 4**

Timeframe	Case study summary	Case study reference
Pre-Baseline and Post-Year 1	Pre-baseline <b>Froneri</b> reformulated Nestlé FAB Strawberry lolly; further reformulation was also achieved Post-Year 1 when four further products were reformulated.	Case study 14
Post-Year 1	Post-year 1 <b>Unilever UK</b> are scheduled to launch two new Ben and Jerry's ice creams with a lower sugar and fat content per 100ml and lower calorie content per serving.	Case study 40

For each of the top 10 manufacturers in table 4, table 6 shows the brand with the highest sugar sales in year 1. Three of these top brands saw reductions of at least 2% in their average sugar levels between baseline and year 1.

**Table 6: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 10 manufacturers (listed in alphabetical order by business)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)	
Alpro (UK) Ltd	Alpro Dairy Free Ice Cream Dessert	13.6	*
Frank's Ice Cream Ltd	Frank's Diabetic Ice Cream	13.4	-
Fredericks Dairies Ltd (Froneri)	Cadbury Filled Cones	19.8	↓
General Mills Inc	Häagen Dazs Ice Cream	23.1	*
Kelly's Ltd (Froneri)	Kelly's Dairy Ice Cream	23.1	↑
Mackie's Aberdeen Dairies	Mackie's Dairy Ice Cream	20.6	-
Mars Chocolate UK	Mars Choc Ices	24.3	-
Richmond Ice Cream Ltd (Froneri)	Rowntree's Fruit Pastilles Lollies	19.1	↓
Unilever UK	Wall's Magnum	27.3	↓
Yoo Moo Ltd (Froneri)	Yoo Moo Lollies	19.1	*

*	Comparable data not available
-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

Table 7 shows the top 20 ice cream, lolly and sorbet brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt.

Ten of the top 20 selling brands have seen a reduction of at least 2% in their average sugar values between baseline and year 1. Out of the ten brands which showed reduction in sugar, 2 brands also showed a reduction in saturated fat and calories, 4 brands showed a reduction in calories but not saturated fat. Three of these brands saw no changes in saturated fat and calories and 1 brand showed a reduction in saturated fat but did see an increase in the overall calorie content. Two brands showed an increase in average sugar levels. Eight of the top 20 have an average sugar level below the guideline value for the category for year 1. It was not possible to monitor change for Haagen Dazs ice cream, Wall's Soft Scoop ice cream or Wall's Viennetta Dessert because of differences in declaring the nutrition information per 100ml and per 100g.

**Table 7: Sugar content and nutrient changes for top 20 ice cream, lolly and sorbet brands by total sugar sales in year 1 (listed in alphabetical order)**

Brand	Sugar g/100g (g/100ml)		Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Ben+Jerry's Fair Trade Ice Cream	25.4 (16.2)	↓	-	-	↑
Ben+Jerry's Ice Cream	25.8 (11.7)	-	↓	-	↓
Cadbury Dairy Milk Chocolate Snack Stick	22.3 (14.9)	-	-	-	-
Cadbury Filled Cones	19.8 (13.2)	↓	-	-	-
Del Monte Ice Lollies	21.2 (21.2)	↓	↑	↓	↓
Häagen Dazs Ice Cream*	23.1 (12.0)				
Kelly's Dairy Ice Cream	23.1 (12.1)	↑	↑	↑	↓
Mackie's Dairy Ice Cream	20.6 (13.1)	-	-	-	↑
Nestlé Fab Ice Lollies	18.4 (15.9)	↓	↓	-	-
Nestlé Nobbly Bobbly Ice Lolly	31.3 (20.9)	-	-	-	-
Rowntree's Fruit Pastilles Lollies	19.1 (19.1)	↓	↓	-	-
Swedish Glace Low/Fat Ice Cream	24.7 (16.4)	↓	↓	-	-
Wall's Carte D'Or Ice Cream	20.5 (13.0)	↓	↓	↓	↓
Wall's Cornetto	23.2 (15.5)	↓	↓	-	↓
Wall's Magnum	27.3 (18.2)	↓	-	-	↓
Wall's Soft Scoop*	22.8 (10.4)				
Wall's Soft Scoop Light	17.0 (11.3)	-	-	-	-
Wall's Solero	25.5 (25.5)	↑	↑	↑	↓
Wall's Viennetta Dessert*	21.0 (9.5)				
Wall's Carte D'or Geleteria Ice Cream	23.8 (16.6)	↓	↓	↓	-

*	Comparable data not available
---	-------------------------------

-	No change
---	-----------

↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
---	---

↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)
---	---

	Average sugar value of brand is at or below the combined in-home guideline figure for year 1 (21.8g)
--	--

## Analysis by retailer and brand within the retail sector

Table 8 shows average change in SWA sugar levels by retailer. For 6 retailers the mix of products available in the Kantar Worldpanel dataset is significantly different between the baseline year and year 1 and hence a change is not shown for those retailers. Only 1 retailer with available data shows a noticeable change between baseline and year 1 where SWA sugar levels reduced by 4.8%. Three retailers have sugar levels at or below the guideline figure for year 1.

**Table 8: Percentage change in SWA sugar for the top 10 retailers by market share (listed in alphabetical order by business)**

Business	% change in SWA (Year 1 vs Baseline)
Aldi Stores Ltd	Data not comparable**
Asda Stores Ltd	Data not comparable
Co-operative food	Data not comparable
Iceland Foods Ltd	-4.8%
J Sainsbury's	0.0%
Lidl UK GMBH	Data not comparable
Marks and Spencer	No permission
Morrisons Ltd	0.0%
Tesco Food Stores Ltd	Data not comparable
Waitrose Ltd	Data not comparable

 SWA sugar value is at or below the combined in-home guideline figure for year 1 (21.8g)

\*\*No comparable data for baseline and no permission given to publish SWA related information

For the businesses that are in table 8, the case studies presented in table 9 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 9: Case study summary for the top retailers highlighted in Table 8**

Timeframe	Case study summary	Case Study reference
Pre-Baseline	Pre-Baseline Asda Stores Ltd reformulated and reduced the calorie content of six ice cream products.	Case study 1
Between Baseline to Year 1	Between Baseline to Year 1 <b>Co-operative food</b> reformulated and reduced the sugar content of two frozen yogurts and two fruit sorbets.	Case study 10
Between Baseline to Year 1	Between Baseline to Year 1 <b>Tesco Food Stores Ltd</b> reformulated and reduced the sugar content of Tesco Neapolitan Soft Scoop.	Case study 39
Between Baseline to Year 1 and Post-Year 1	Between Baseline to Year 1 and Post-Year 1 <b>Waitrose Ltd</b> reformulated fourteen ice cream lines.	Case study 42

Post-Year 1	Post-Year 1 <b>Iceland Foods Ltd</b> reformulated and reduced the sugar content of six ice creams.	Case study 17
Post-Year 1	Post-Year 1 <b>Morrisons Ltd</b> reformulated and reduced the sugar content of five ice cream cones.	Case study 27

For each of the top 10 retailers in table 8, table 10 shows the brand with the highest sugar sales in year 1. Only one brand with comparable data saw a change of more than 2% in average sugar content between baseline and year 1.

**Table 10: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 10 retailers (listed in alphabetical order by business)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)
Aldi Stores Ltd	Aldi Ice Cream	21.8 *
Asda Stores Ltd	Asda Ice Cream	20.5 *
Co-operative food	Co-op Premium Ice Cream	21.4 -
Iceland Foods Ltd	Iceland Filled Cones	25.2 -
J Sainsbury's	Sainsbury's By Ice Cream	20.1 ↓
Lidl UK GMBH	Lidl Chocolate Snack Sticks	30.7 *
Marks and Spencer	M&S Dairy Ice Cream	20.6 -
Morrisons Ltd	Morrisons Filled Cones	40.0 -
Tesco Food Stores Ltd	Tesco Ice Cream	21.5 -
Waitrose Ltd	Waitrose Dark Choc Ice	29.4 *

*	Comparable data not available
-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

Table 11 shows the top 20 retailer own brand ice cream, lolly and sorbet brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt. Two brands showed a reduction in sugar; sugar reduction showed no impact on saturated fat but was accompanied by a reduction in calories for 1 brand. Seven of the top 20 brands have average sugar content below the year 1 guideline value for the category.

**Table 11: Sugar content and changes in other nutrients for top 20 retailer ice cream, lolly and sorbet brands by total sugar sales in 2017 (listed in alphabetical order)**

Brand	Sugar g/100g (g/100ml)	Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Aldi Chocolate Snack Sticks*	27.3 (18.2)			
Aldi Ice Cream*	21.8 (12.0)			
Aldi Premium Ice Cream*	21.3 (14.2)			
Asda Filled Cones*	22.8 (15.2)			
Asda Ice Cream*	20.5 (10.1)			
Iceland Chocolate Snack Sticks	27.4 (18.3) -	-	-	-
Iceland Filled Cones	25.2 (16.8) -	↓	-	↑
Lidl Chocolate Snack Sticks*	30.8 (21.7)			
Morrisons Chocolate Snack Sticks	45.2 (30.2) ↑	↑	-	↓
Morrisons Filled Cones	40.0 (26.7) -	-	-	↑
Morrisons Ice Cream	29.4 (14.4) -	↑	↑	↓
Morrisons Lollies	19.5 (19.5) ↑	↑	-	-
Sainsbury's By Ice Cream	20.1 (9.1) ↓	-	-	↑
Sainsbury's By Indulgence Chocolate Sticks	28.0 (18.7) -	-	-	↑
Tesco Chocolate Snack Sticks	29.6 (19.7) -	↓	-	↑
Tesco Filled Cones	24.8 (16.6) ↓	↓	-	-
Tesco Ice Cream	21.5 (9.8) -	↓	↓	↓
Tesco Lollies	20.9 (17.8) -	-	-	-
Tesco Premium Ice Cream	25.7 (17.2) -	↓	-	↓
Tesco Value Ice Cream*	17.5 (8.0)			

*	Comparable data not available
-	No change
↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)

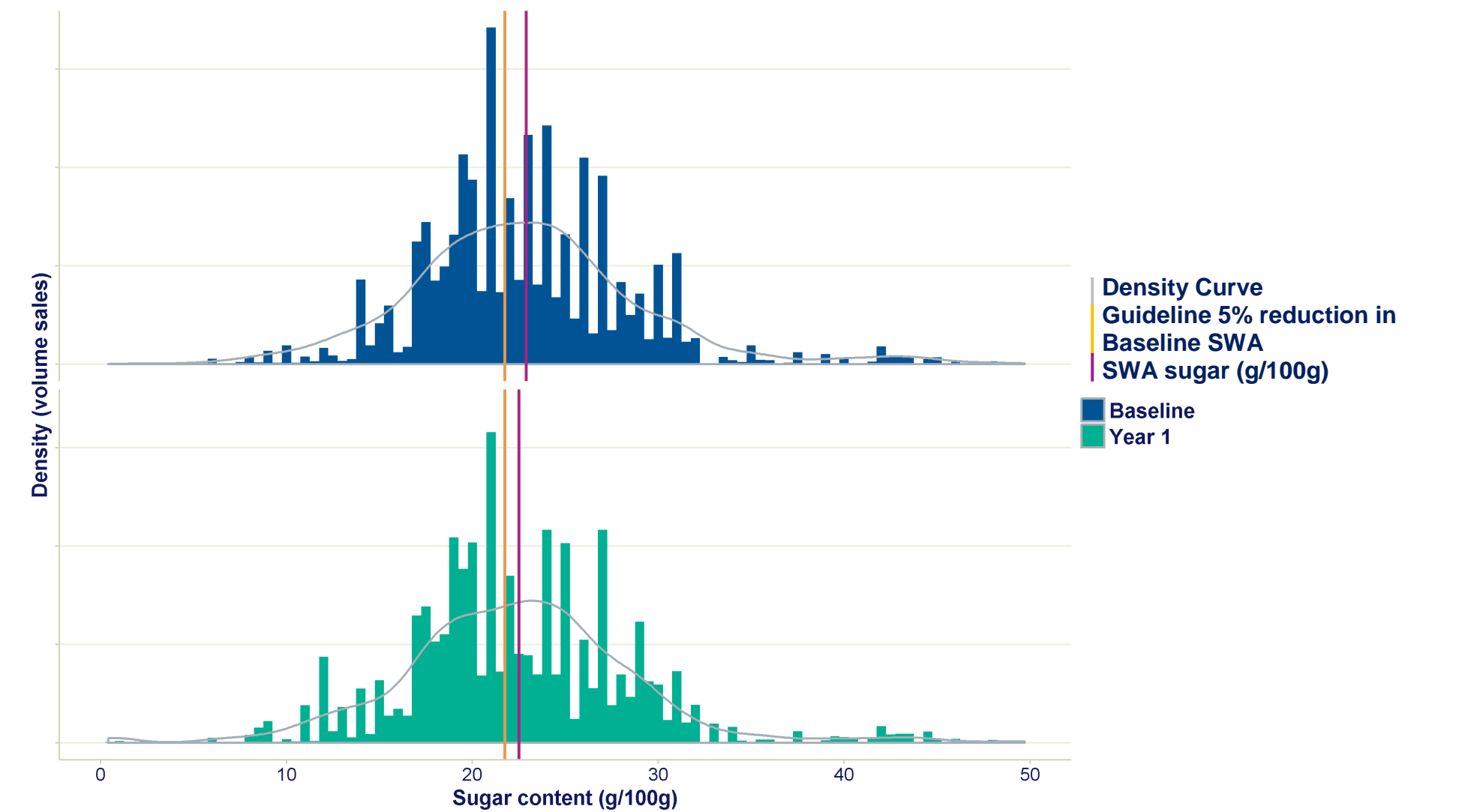
■ Average sugar value of brand is at or below the combined in-home guideline figure for year 1 (21.8g)

■ Average sugar value is above the combined in-home year 1 guideline by less than 1%

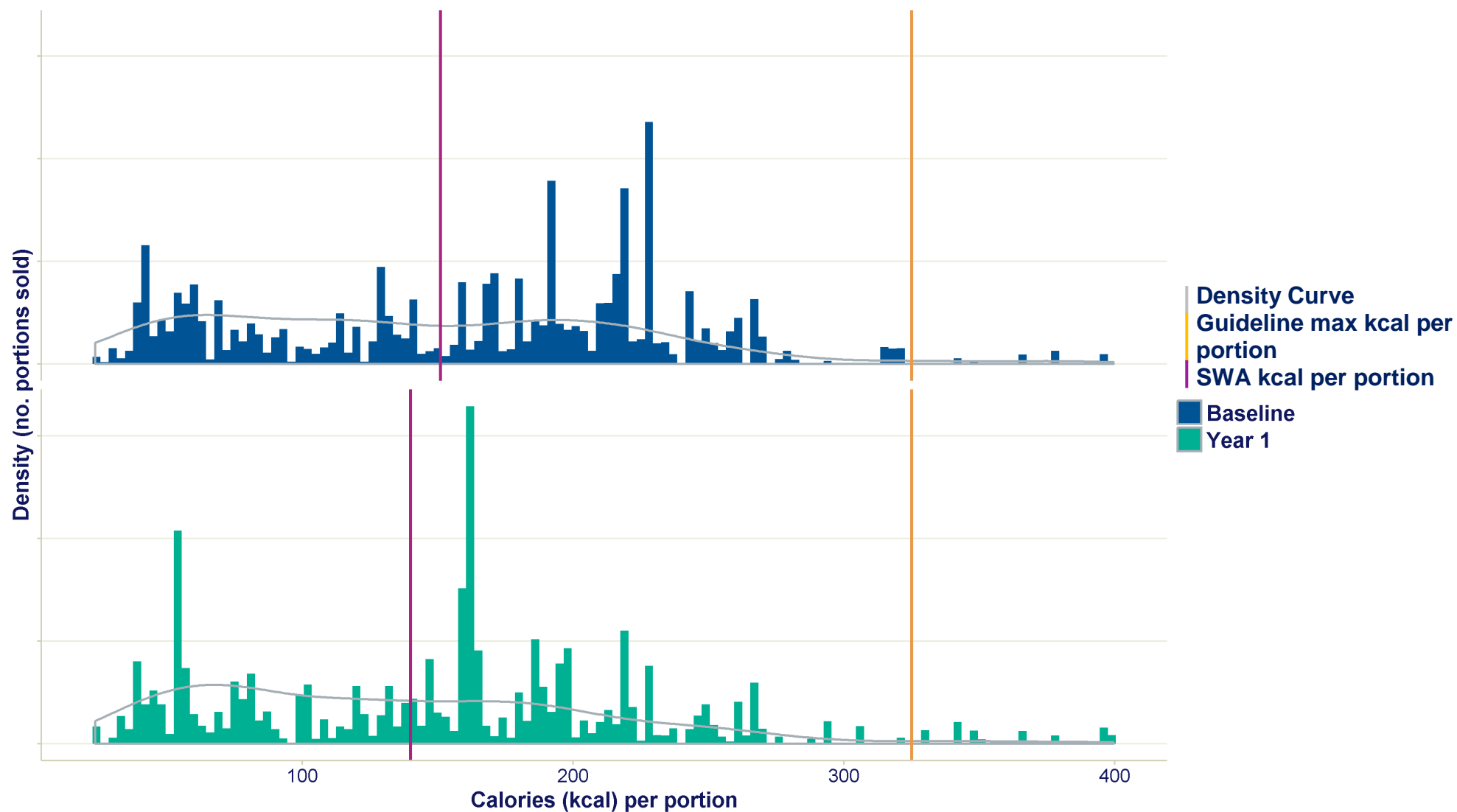
Figures 1 and 2 show the distribution of total sugar (g/100g) and calories per portion for all ice cream, lolly and sorbet products with real nutrition information in the Kantar Worldpanel datasets at baseline and year 1.



Figure 1: Distribution of total sugar (g/100g) for retailer and manufacturer ice creams, lollies and sorbets



**Figure 2: Distribution of calories per portion (kcal) for single serve retailer and manufacturer ice creams, lollies and sorbets**



## Ice creams, lollies and sorbets in the out of home sector

Table 12 shows updated baseline statistics for ice creams, lollies and sorbets purchased out of the home. Purchases (volume sales) are based on the reported volume of product consumed. The sales weighted average (SWA) total sugar level (g/100g) for ice creams, lollies and sorbets in the out of home sector was 21.1g in 2017 which is comparable to the in-home average of 22.5g. This can not be directly compared with the figure published for 2015 due to a change in data supplier and improved data coverage (see the methods section for more information about the updated baselines for out of home).

**Table 12: Ice creams, lollies and sorbets: updated baseline statistics for out of home consumption, 2017**

	2017 (updated Baseline)
Baseline sales weighted average (SWA) total sugar content (g/100g)	21.1g
Range of total sugar content across products in category (min-max, g/ 100g)	0.4g – 98g
SWA calories per portion	288 kcal

Table 13 shows the top 10 sellers of ice creams, lollies and sorbets out of home and the SWA total sugar levels (g/100g) and calories per portion (kcal) where they are available. The number of products used in the SWA calculation is shown in the table. Nutrition information is only available for a limited number of businesses and no information is available for 2015 and hence only 2017 data are shown. For ice creams, lollies and sorbets there is more information available about calories per portion than sugar levels.

**Table 13: SWA sugar (g/100g) and calories per portion (kcal) for the top 10 sellers\* of ice cream lolly and sorbet product types out of home in year 1 (2017), where matched nutrition data are available, listed in alphabetical order by business**

	2017			
	sugar (g/100g)		calories per portion	
Business	SWA	number of products	SWA	number of products
Beefeater	26.0	4	289	19
Brewers Fayre	25.9	6	258	20
Burger King	n/a	n/a	189	8
Harvester	35.9	3	231	15
Hungry Horse	n/a	n/a	1163	4
JD Wetherspoon	n/a	n/a	412	12
KFC	n/a	n/a	351	8
McDonald's	23.3	28	356	29
Nando's	18.3	9	120	19
Toby Carvery	22.4	18	331	18

n/a – Nutrition information not available in the OOH dataset, therefore SWA calculation is not possible.

\*Top 10 sellers of ice cream, lollies and sorbet have been ranked based on reported volume of product type consumed from each business.

For the businesses that are in table 13, the case studies presented in table 14 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 14: Case study summary for the top businesses highlighted in Table 12**

Timeframe	Case study summary	Case study reference
Post-Year 1	Post-Year 1 <b>Whitbread</b> reformulated the recipes and reduced the sugar content of Cookie Dough Ice Cream, Lemon Curd Sorbet and Vanilla Ice Cream.	Case study 43

Table 15 shows the SWA sugar content of the top 10 ice cream, lolly and sorbet product types purchased in the out of home sector listed alphabetically by business. There is a range of sugar values in the top 10 but only one product below the average for the ice creams, lollies and sorbets category for year 1.

**Table 15: Average sugar levels (g/100g) for the top 10 ice cream, lolly and sorbet product types purchased\* out of home (by total sugar sales\* in year 1), listed in alphabetical order by business**

Business	Top sugar contributing product type (by total sugar sales in Year 1)	Average sugar content of top contributing product type (g/100g)
Beefeater	Ice cream - sundae	26.3
Brewers Fayre	Ice cream - sundae	26.9
Harvester	Ice cream - sundae	37.3
McDonald's	Ice cream - ice cream	24.2
McDonald's	Ice cream - sundae	24.0
McDonald's	Frozen yoghurt	13.3
Pizza Hut Restaurant	Ice cream - ice cream	41.2
Toby Carvery	Ice cream - ice cream	21.8
Toby Carvery	Ice cream - sundae	23.5
Wagamama	Ice cream - ice cream	22.9

\*Purchased and total sugar sales relate to the reported volume of product consumed

 Average sugar value is at or below the OOH updated baseline (2017) figure (21.1g)


Table 16 shows the top 10 ice cream, lolly and sorbet product types purchased out of home by total calorie sales in 2017.

Seven of the top 10 have average calories per portion above the guideline maximum of 325 kcal. However, it is possible that the products with more than 1,000 calories are intended for shared and not single consumption. Products that were clearly marked as for sharing were excluded from the analysis.

**Table 16: Average calories per portion (kcal) for the top 10 ice cream, lolly and sorbet product types purchased\* out of home (by total calories sales\* in year 1), listed in alphabetical order by business**

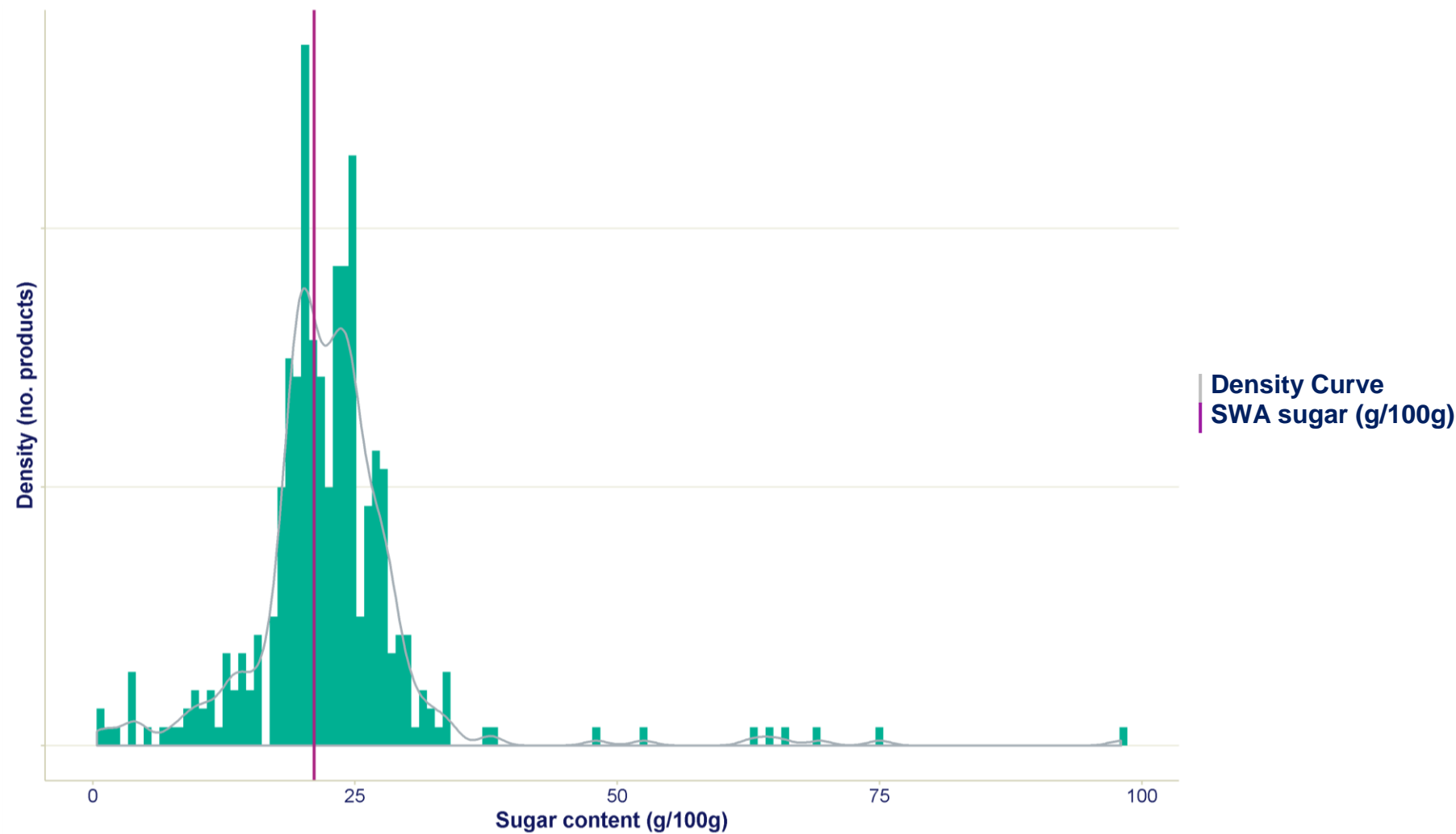
Business	Top calorie contributing product type (by total calorie sales in Year 1)	Average calorie content of top contributing product type (kcal per portion)
Burger King	Ice cream - ice cream	190
Harvester	Ice cream - sundae	640
Hungry Horse	Ice cream - sundae	1163
JD Wetherspoon	Ice cream - sundae	1010
JD Wetherspoon	Ice cream - ice cream	272
KFC	Ice cream - ice cream	368
McDonald's	Ice cream - ice cream	376
McDonald's	Ice cream - sundae	325
Toby Carvery	Ice cream - ice cream	337
Toby Carvery	Ice cream - sundae	567

\*Purchased and total calorie sales relate to the reported volume of product consumed

 Average calorie per portion is above the guideline maximum figure (325kcal)

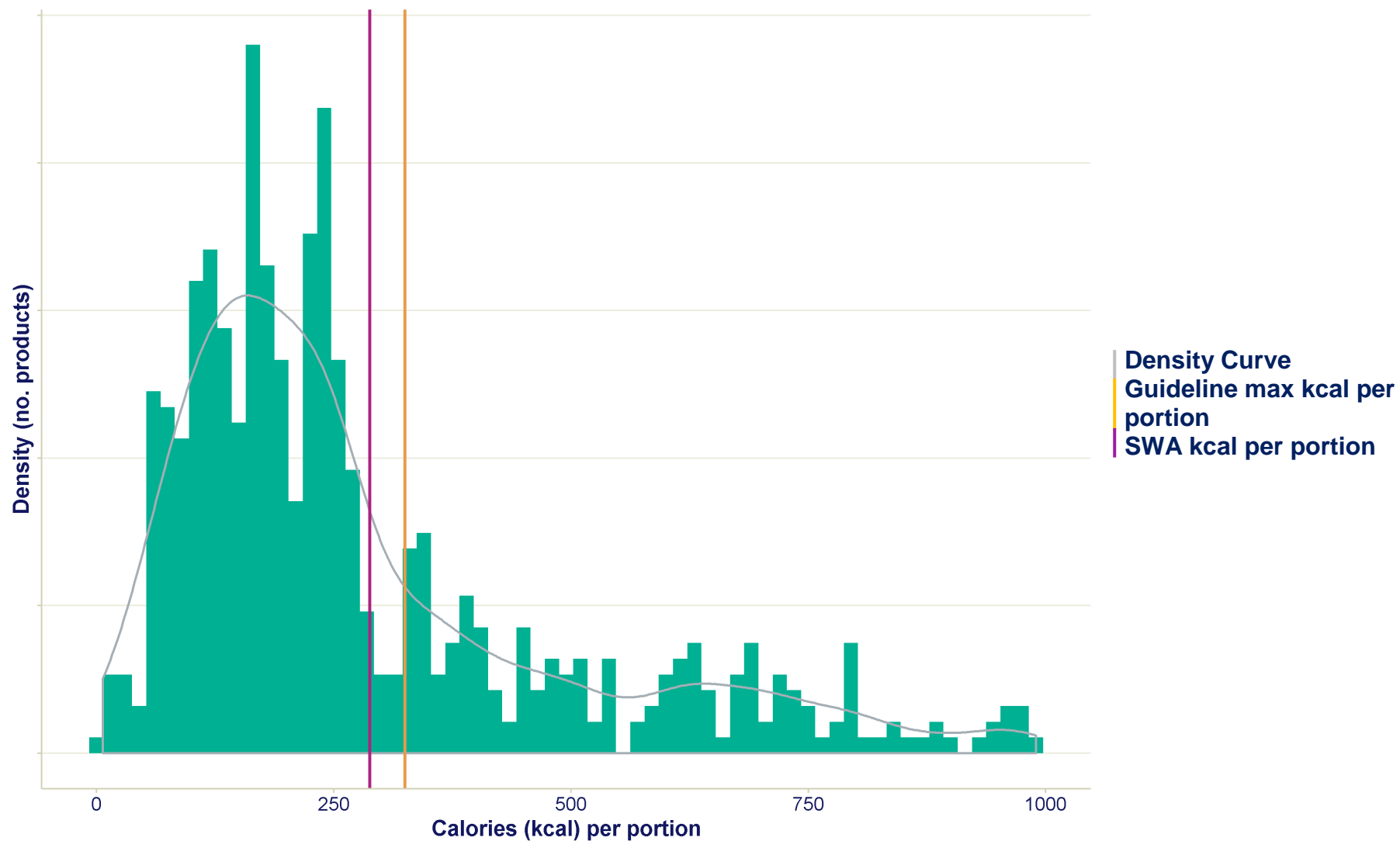
Figures 3 and 4 show the distribution of total sugar (g/100g) and calories per portion for ice creams, lollies and sorbets purchased out of home based on the available nutrition data for year 1 (2017).

**Figure 3: Distribution of total sugar (g/100g) for ice cream, lolly and sorbet product types purchased\* out of home, year 1 (2017)**



\*Ice cream, lolly and sorbet product types purchased relate to the reported volume of product consumed

**Figure 4: Distribution of calories per portion (kcal) for ice cream, lolly and sorbet product types purchased\* out of home, year 1 (2017)**



\*Ice cream, lolly and sorbet product types purchased relate to the reported volume of product consumed



## Provisional results: morning goods - analysis of average sugar levels and calories per portion from baseline to year 1

### Summary

This section presents for retailer own brand and manufacturer branded products, limited category and business level analysis of sugar content and calories per portion between baseline and year 1 for morning goods, due to restricted data (primarily because of limited information on product weight).

Over the coming months, PHE will work with Kantar Worldpanel and the food industry to improve the coverage of the weighed data and will consider alternative options for estimating weights in order to provide a more comprehensive assessment of retailer own brand and manufacturer branded morning goods in year 2.

This section also presents for the out of home sector, category and business level analysis of sugar content and calories per portion for year 1. Changes between baseline and year 1 are not reported for this sector, due to data limitations that we are working to address for year 2.

Datasets based on consumer panel food purchase surveys have been used for these analyses. The baseline year is 2015. For year 1, data for retailers and manufacturers are for the year ending September 2017, and for the out of home sector are for the year ending August 2017. Some businesses have made reduction and reformulation changes that will not be captured within this timeframe, and they will be reported in subsequent assessments of progress.

### Morning goods in the retail and manufacturing sectors

Volume sales of morning goods products in the Kantar Worldpanel dataset are generally presented in terms of portions or servings and information on portion size is not routinely available. In order to estimate sales weighted average (SWA) total sugar levels (g/100g) for the category, a sample of products was weighed in 2014 which was used for baseline and a separate sample was weighed in 2017 (year 1) to increase the number of products with real nutrition and volume data in the data set. PHE also asked businesses to supply weight and nutrition data for cakes and morning goods items to supplement the data set. Information received from Waitrose, Co-operative food and Lidl UK was incorporated into the dataset.

Only products which have real nutrition information and volume in grams are used in the category analysis. As a result, coverage of the morning goods sector is significantly less complete than for other food categories where volume sales are recorded in grams. For year 1, only 26% of all products have the necessary data to be used in the category analysis for retailer own brand and manufacturer branded products. This has limited the analysis which has been produced for this category and it has not been possible to produce the same number and spread of tables that have been created for other categories. The results presented should be interpreted with caution.

**Table 1: Coverage of the morning goods category at baseline (2014) and year 1 (2017) for retailers and manufacturers**

	Baseline	Year 1
Number of products available for analysis	244	249
Proportion of all products in the category that are available for analysis	20%	26%

From table 2 it can be calculated that, from the available weighed data, SWA total sugar levels increased by 2% for manufacturer branded products, and by 5% for retailer own brand products between the baseline and year 1. A higher proportion of the available data is from retailers in year 1. Since retailer morning goods products have higher average sugar levels than manufacturer products a combined figure for year 1 would not be comparable with the baseline average so this has not been presented.

**Table 2: Sales weighted average total sugar levels (g/100g) and average single serve calories per portion (kcal) for morning goods for manufacturers and retailers**

	Baseline (2014)		Year 1 (2017)	
	Manufacturers	Retailers	Manufacturers	Retailers
Market share (% volume sales)	46%	54%	26%	74%
SWA total sugar content (g/100g)	8.0g	15.3g	8.2g	16.0g
SWA calories per portion (for single serve products)	115kcal	177 kcal	131 kcal	169 kcal

### Analysis by business (like for like products)

As the coverage of the morning goods sector is relatively limited in both the baseline year and year 1, comparisons by business have been restricted to products which are available in both years (with a matched product code in the Kantar Worldpanel dataset) and for businesses with at least 5 matched products appearing in both years. Five retailers (own brand) products fit that criteria, but no manufacturer brands do. Reductions in SWAs were seen for 2 of the 5 businesses.

**Table 3: Percentage change in SWA total sugar by retailer (like for like products only); listed in alphabetical order by business**

Business	% change in SWA (Year 1 vs Baseline)
Aldi Stores Ltd	Data not comparable**
J Sainsbury's	-2.6%
Marks and Spencer	No permission
Tesco Food Stores Ltd	-3.0%
Waitrose Ltd	Data not comparable

\*\*No comparable data for baseline and no permission given to publish SWA related information

For the businesses that are in table 3, the case studies presented in table 4 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 4: Case study summary for the top retailers highlighted in Table 3**

Timeframe	Case study summary	Case study reference
Pre-Baseline	Pre-Baseline <b>Tesco Food Stores Ltd</b> reformulated the recipe of eight pack Chocolate Chip Brioche Rolls.	Case study 39

For each of the retailers (own brand) in table 3, table 5 shows the brand with the highest sugar sales in year 1 (of the brands where matched data from baseline are available). Average sugar content has reduced across the top brands for 3 businesses.

**Table 5: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) by retailer (like for like products only; listed in alphabetical order by business)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average sugar content of top brand (g/100g)
Aldi Stores Ltd	Aldi Unfruited Other Buns	22.0 *
J Sainsbury's	Sainsbury's Taste the Difference Hot Cross Buns	23.3 ↓
Marks and Spencer	M&S Hot Cross Buns	24.1 -
Tesco Food Stores Ltd	Tesco Hot Cross Buns	18.4 ↓
Waitrose Ltd	Waitrose Hot Cross Buns	21.9 ↓

*	Comparable data not available
-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

## Morning goods in the out of home sector

Table 6 shows updated baselines for morning goods purchased out of the home. Purchases (volume sales) are based on the reported volume of product consumed. The SWA total sugar level for morning goods in the out of home sector was 15.9g per 100g in 2017. The SWA calories per portion was 319 kcal. This can not be directly compared with the figures published for 2015 due to a change in data supplier and improved data coverage.

**Table 6: Morning goods: updated baseline statistics for out of home food, 2017**

	2017 (updated Baseline)
Baseline sales weighted average (SWA) total sugar content (g/100g)	15.9g
Range of total sugar content across products in category (min-max, g/100g)	0.6g – 52g
SWA calories per portion	319kcal

Table 7 shows the top 10 sellers of morning good product types out of home and the SWA total sugar levels and portion sizes where they are available. The number of products used in the SWA calculation is shown in the table. Nutrition information is only available for a limited number of businesses and no information is available for 2015 and hence only 2017 data are shown.

**Table 7: SWA sugar (g/100g) and calories per portion (kcal) for the top 10 sellers\* of morning good product types out of home in year 1 (2017), where matched nutrition data are available, listed in alphabetical order by business**

Business	2017			
	sugar (g/100g)		calories per portion	
	SWA	number of products	SWA	number of products
Burger King	n/a	n/a	377	8
Caffè Nero	15.6	28	307	28
Co-operative food (Food to Go section)	n/a	n/a	n/a	n/a
Costa Coffee	19.9	26	286	26
Greggs	22.7	13	382	13
Marks and Spencer Cafe	10.5	4	300	8
McDonald's	20.6	5	472	5
Starbucks	19.1	15	349	15
Tesco Food Stores Ltd Cafe	n/a	n/a	n/a	n/a
Tesco Food Stores Ltd (Food to Go section)	n/a	n/a	n/a	n/a

n/a – Nutrition information not available in the OOH dataset, therefore SWA calculation is not possible.

\*Top 10 sellers of morning goods have been ranked based on reported volume of product type consumed from each business.

For the businesses that are in table 7, the case studies presented in table 8 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 8: Case study summary for the top businesses highlighted in Table 7**

Timeframe	Case study summary	Case study reference
Between Baseline to Year 1	Between Baseline to Year 1 <b>Costa Coffee</b> reformulated and reduced the portion size of the Teacake.	Case study 11
Post-Year 1	Post-Year1 <b>McDonald's</b> reformulated the recipe of pancakes.	Case study 24
Post-Year 1	Post-Year 1 <b>Starbucks</b> reformulated the recipe of Croissant, Pain Au Chocolat and Almond Croissant .	Case study 36

Table 9 shows the top 10 morning goods product types purchased in the out of home sector in terms of estimated sugar sales. There is a range of sugar values in the top 10 including two products below the category average for year 1.

**Table 9: Average sugar levels (g/100g) for the top 10 morning goods product types purchased\* out of home, (by total sugar sales \* in year 1), listed in alphabetical order**

Business	Top sugar contributing product type (by total sugar sales in Year 1)	Average sugar content of top contributing product type (g/100g)
Caffè Nero	Croissant sweet	12.9
Caffè Nero	Danish pastry	16.3
Costa Coffee	Croissant sweet	16.3
Costa Coffee	Danish pastry	24.8
Costa Coffee	Teacake Welsh cake	23.8
Greggs	Belgian bun	36.2
Greggs	Danish pastry	20.9
McDonald's	Pancakes	20.6
Starbucks	Danish pastry	19.5
Starbucks	Croissant sweet	13.4

\*Purchased and total sugar sales relate to the reported volume of product consumed



 Average sugar value is at or below the OOH updated baseline (2017) figure (15.9g)

Table 10 shows the top 10 morning goods product types purchased out of home in terms of total calories, listed alphabetically by business. Three of the top 10 morning goods product types based on total calorie sales have an average calories per portion above the guideline maximum of 325 kcal.

**Table 10: Average calories per portion (kcal) for the top 10 morning goods product types purchased\* out of home, (by total calorie sales\* in year 1), listed in alphabetical order by business**

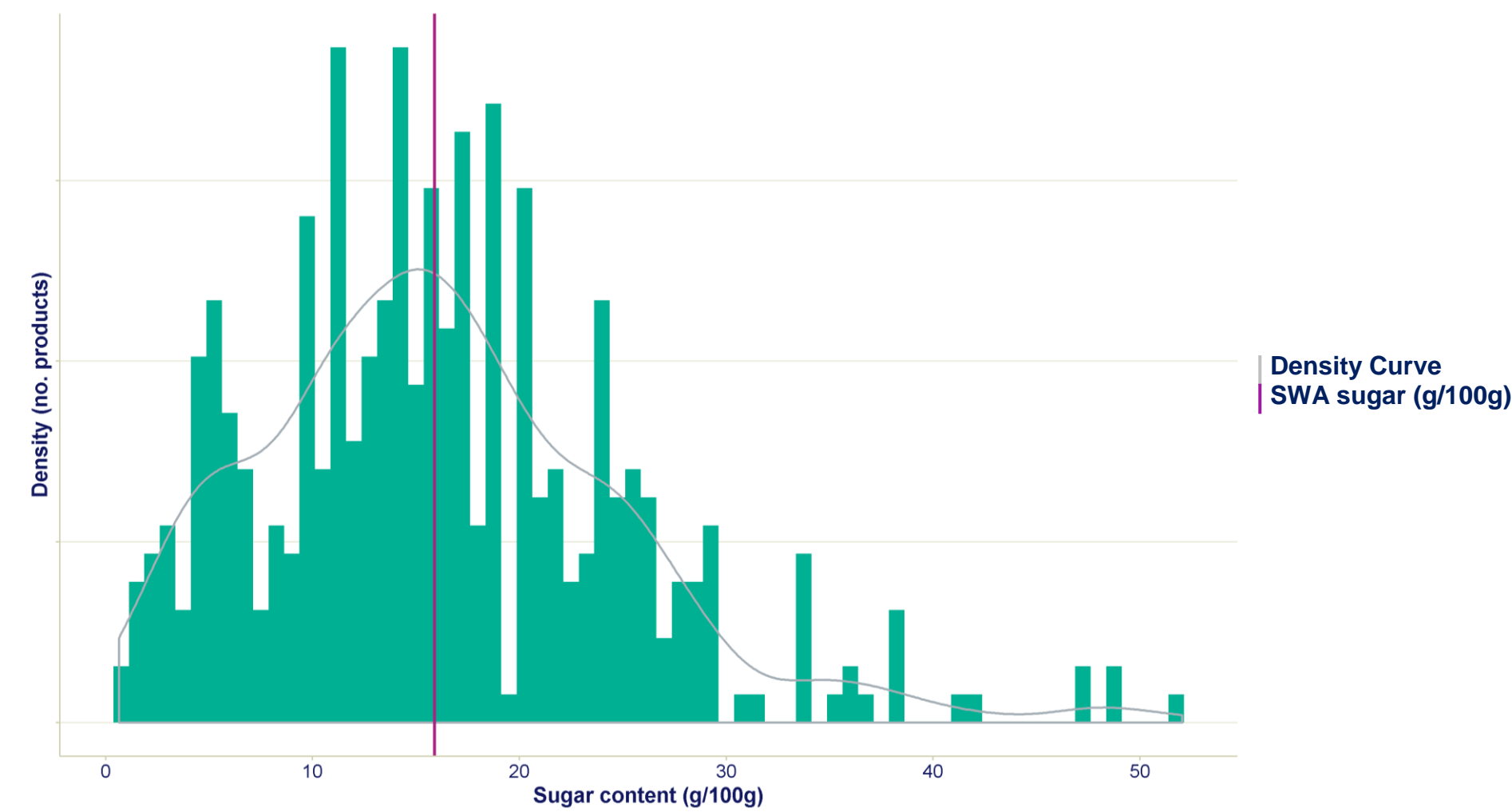
Business	Top calorie contributing product type (by total calorie sales in Year 1)	Average calorie content of top contributing product type (kcal per portion)
Caffè Nero	Croissant sweet	297
Caffè Nero	Danish pastry	324
Costa Coffee	Croissant sweet	301
Costa Coffee	Danish pastry	299
Costa Coffee	Teacake Welsh cake	283
Greggs	Danish pastry	392
Marks and Spencer Cafe	Scone	300
McDonald's	Pancakes	476
Starbucks	Danish pastry	418
Starbucks	Croissant sweet	296

\*Purchased and total calorie sales relate to the reported volume of product consumed

 Average calorie per portion is above the guideline maximum figure (325kcal)

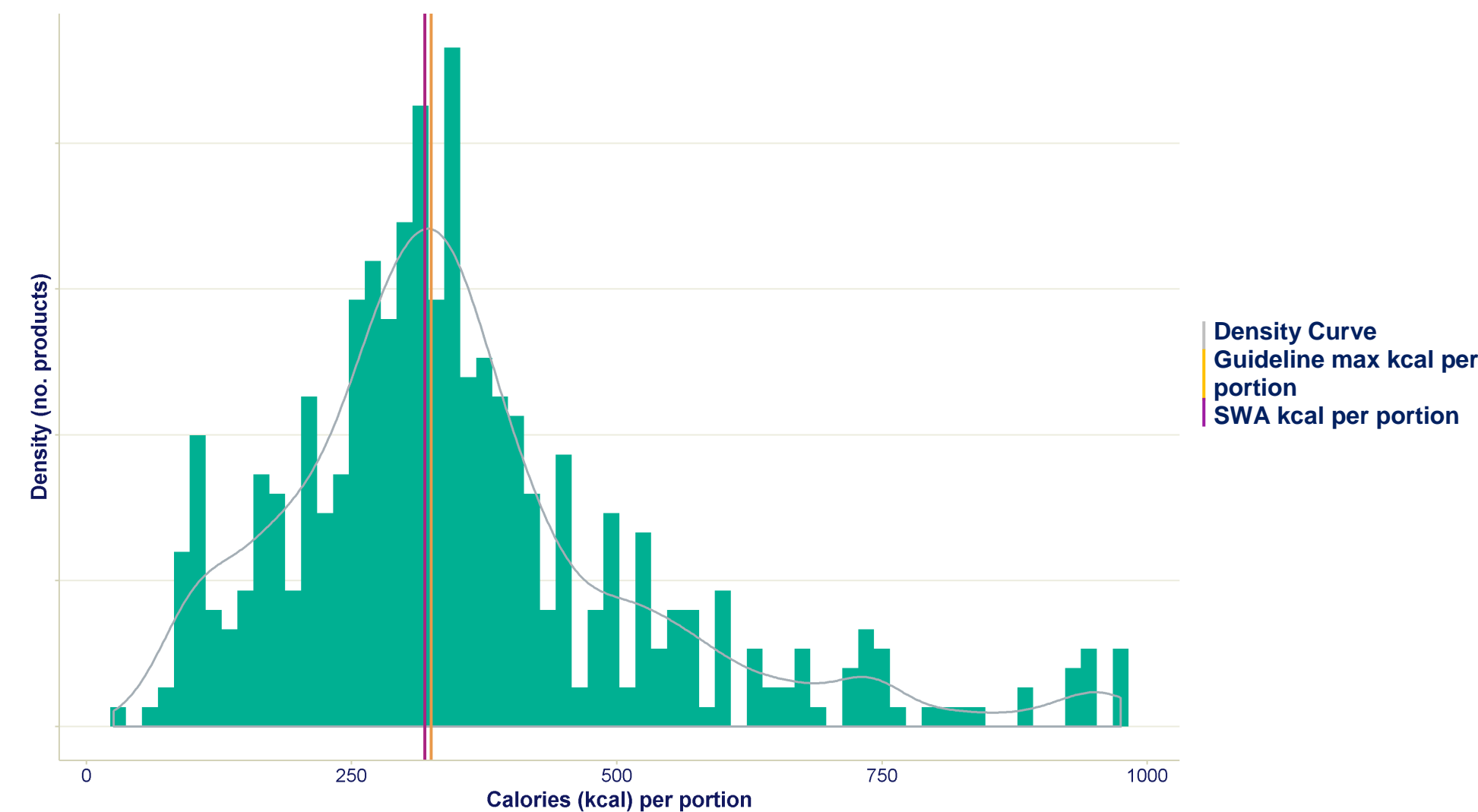
Figures 1 and 2 show the distribution of total sugar (g/100g) and calories per portion for morning good products purchased out of home based on the available nutrition data for year 1 (2017).

**Figure 1: Distribution of total sugar (g/100g) for morning good product types purchased\* out of home, year 1 (2017)**



\*Morning good product types purchased relate to the reported volume of product consumed

**Figure 2: Distribution of calories per portion (kcal) for morning good product types purchased\* out of home, year 1 (2017)**



\*Morning good product types purchased relate to the reported volume of product consumed



## Year 1 progress: puddings - analysis of average sugar levels and calories per portion from baseline to year 1

### Summary

This section presents for retailer own brand and manufacturer branded products, category and business level analysis of sugar content and calories per portion between baseline and year 1 for puddings. Overall there has been an increase of 1% in SWA total sugar levels (g/100g) and a 4% increase in SWA calories per portion.

This section also presents for the out of home sector category and business level analysis of sugar content and calories per portion for year 1. Change between baseline and year 1 are not reported for this sector due to data limitations that should be addressed for year 2.

Datasets based on consumer panel food purchase surveys have been used for these analyses. The baseline year is 2015. For year 1, data for retailers and manufacturers are for the year ending September 2017, and for the out of home sector are for the year ending August 2017. Some businesses have made reduction and reformulation changes that will not be captured within this timeframe, and they will be reported in subsequent assessments of progress.

### Puddings in the retail and manufacturing sectors

The analysis in this section is based on pudding products with real nutrition information in the retail and manufacturing sector taken from Kantar Worldpanel datasets. In 2017 this covers 79% of all the puddings in the dataset for retailer own brand and manufacturer branded products.

Table 1 shows that sales weighted average (SWA) total sugar levels (g/100g) in retailer own brand and manufacturer branded puddings combined increased by 1% between baseline and year 1. Sales weighted average calories per portion compared to the revised baseline increased by 4% (see the summary results section of the report for more information about the revised baselines).

**Table 1: Sales weighted average total sugar levels (g/100g), ranges of total sugar (g/100g) and average single serve calories per portion (kcal) for puddings at baseline (2015) and year 1 (2017) for retailers and manufacturers combined**

	Baseline	Year 1	% change
Number of products with real nutrition information	1984	1879	
Proportion of all products in the category that have real nutrition information	80%	79%	
Retailer and manufacturer sales weighted average (SWA) total sugar content (g/100g)	17.5g	17.6g	+1%
Range of total sugar content across products in category (min-max, g/100g)	0.1g – 63.1g	0.1g - 94g	
Range of total sugar content in top 20 products by volume sugar sales (min-max, g/100g)	8.9g – 43.3g	9.2g – 38.4g	
SWA calories per portion (for single serve products)	174 kcal	181 kcal	+4%

From table 2 it can be calculated that SWA total sugar levels reduced by 1% for manufacturer branded and increased by 2% for retailer own brand products. There was an increase of 3% in average calories per portion for both manufacturer branded and retailer own brand products compared with the revised baseline levels.

**Table 2: Sales weighted average total sugar levels (g/100g) and average calories per portion (kcal) for single serve puddings for manufacturers and retailers at baseline (2015) and year 1 (2017)**


	Baseline		Year 1	
	Manufacturers	Retailers	Manufacturers	Retailers
Market share (% volume sales)	49%	51%	44%	56%
SWA total sugar content (g /100g)	15.5g	19.1g	15.3g	19.4g
SWA calories per portion (for single serve products)	149 kcal 149 kcal (revised)	202 kcal 201 kcal (revised)	153 kcal	208 kcal

## Analysis by company and brand within the manufacturing sector

Between baseline and year 1, 3 of the top 10 pudding manufacturers saw increases of 4% or more in their average sugar levels. Two of the top 10 have a SWA sugar value below the year 1 guideline value for the pudding category. Some businesses have future reductions in the pipeline or have completed reformulation which has not been captured in the datasets (see case studies in appendix 4).

**Table 3: Percentage change in SWA total sugar for the top 10 manufacturers by market share (listed in alphabetical order by business)**

Business	% change in SWA (Year 1 vs Baseline)
<b>Alpro (UK) Ltd</b>	1.9%
<b>Aunt Bessie's Ltd</b>	Data not comparable
<b>Coppenrath &amp; Wiese UK Ltd</b>	12.8%
<b>Hain Daniels</b>	No permission
<b>Kensey Foods</b>	No permission
<b>Lactalis Nestlé UK</b>	0.0%
<b>Müller UK &amp; Ireland</b>	No permission
<b>Premier Foods</b>	4.4%
<b>Rensow Patisserie Ltd</b>	No response
<b>Yoplait UK Ltd</b>	6.3%

 SWA sugar value is at or below the in-home guideline figure for year 1 (16.6g)

For the businesses that are in table 3, the case studies presented in table 4 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 4 Case study summary for the top manufacturers highlighted in Table 3**

Timeframe	Case study summary	Case study reference
Between Baseline to Year 1	Between Baseline to Year 1 <b>Premier Foods</b> reformulated the recipe of Ambrosia Devon Custard.	Case study 31
Post-Year 1	Post-Year 1 <b>Lactalis Nestlé UK</b> reformulated Nestlé Rolo Dessert reducing the calories and sugar in each serving.	Case study 21

For each of the top 10 manufacturers in table 3, table 5 shows the brand with the highest sugar sales in year 1. Three of these top 10 show increases in average sugar levels of at least 2% since the baseline and 3 brands show a reduction of at least 2%.

**Table 5: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 10 manufacturers (listed in alphabetical order by business)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)
Alpro (UK) Ltd	Alpro Gluten Free Soya Long Life Dessert	11.3    ↑
Aunt Bessie's Ltd	Aunt Bessie's Other	23.1    *
Coppenrath & Wiese UK Ltd	Coppenrath & Wiese Layer Cake	26.8    ↑
Hain Daniels	Hartley's Ready To Serve Desserts	12.3    ↓
Kensey Foods	Cadbury Chilled Traditional	25.7    -
Lactalis Nestlé UK	Nestlé Aero Chilled Mousse	21.5    ↑
Müller UK & Ireland	Müllerice Chilled Rice Pudding	12.3    ↓
Premier Foods	Ambrosia Ready To Serve Custard	11.7    ↓
Rensow Patisserie Ltd	Gü After Dark Chilled Cheesecake	26.1    -
Yoplait UK Ltd	Yoplait Petit Filous Little Dessert	20.4    -

*	Comparable data not available
-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%


Table 6 shows the top 20 pudding brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt.

Five of the top 20 selling brands have seen a reduction of at least 2% in their average sugar values between the baseline and year 1 and 5 brands have seen an increase of at least 2%. One of the brands with a reduction in sugar is showing an increase for calories per 100g.

**Table 6: Sugar content and changes in other nutrients for top 20 pudding brands by total sugar sales in year 1 (listed in alphabetical order)**

Brand	Sugar (g/100g)		Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Ambrosia Low Fat Ready To Serve Custard	11.0	-	↓	-	-
Ambrosia Ready To Serve Custard	11.7	↓	-	-	-
Ambrosia Rice Pudding	9.6	↑	↑	-	↑
Ambrosia Ready To Serve Dessert	9.7	-	-	-	-
Aunt Bessie's Other*	23.1				
Aunty's Sponge Pudding	39.0	-	-	-	-
Cadbury Layers of Joy Dessert	24.0	↓	↑	-	-
Cadbury Pots of Joy Dessert	26.9	-	-	-	-
Cadbury Chilled Traditional	25.7	-	↓	-	↑
Cadbury Chocolate Twin Pot Other Dessert	26.8	↓	-	-	-
Coppenrath & Wiese Layer Cake	26.8	↑	↑	-	-
Gü After Dark Chilled Cheesecake	26.1	-	-	-	↑
Gü Chilled Cheesecake	23.7	-	↓	-	↑
Hartley's Ready To Serve Desserts	13.1	↓	↓	-	↓
Mr Kipling Sponge Pudding	35.2	↑	-	-	-
Müllerice Chilled Rice Pudding	12.3	↓	-	-	-
Nestlé Aero Chilled Mousse	21.5	↑	↑	-	↓
Nestlé Milky Bar Chilled Other Dessert	20.1	-	↓	↓	-
Nestlé Rolo Chilled Other Dessert	25.5	-	↑	-	-
Nestlé Ski Chilled Mousse	16.3	↑	-	-	-

*	Comparable data not available
-	No change
↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)

 Average sugar value of brand is at or below the combined in-home guideline figure for Year 1 (16.6g)

## Analysis by retailer and brand within the retail sector

Table 7 shows the percentage change in SWA sugar for the top 10 retailers (own brand) based on volume sales. In all cases, the SWA sugar value is higher than the guideline figure of 16.6g per 100g for the category for year 1.

**Table 7: Percentage change in SWA sugar for the top 10 retailers by market share (listed in alphabetical order by business)**

Business	% change in SWA (Year 1 vs Baseline)
<b>Aldi Stores Ltd</b>	Data not comparable**
<b>Asda Stores Ltd</b>	-1.6%
<b>Co-operative food</b>	-1.0%
<b>Iceland Foods Ltd</b>	5.3%
<b>J Sainsbury's</b>	-1.0%
<b>Lidl UK GMBH</b>	Data not comparable
<b>Marks and Spencer</b>	No permission
<b>Morrisons Ltd</b>	9.2%
<b>Tesco Food Stores Ltd</b>	-2.1%
<b>Waitrose Ltd</b>	7.0%

\*\*No comparable data for Baseline and no permission given to publish SWA related information

For the businesses that are in table 7, the case studies presented in table 8 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 8 Case study summary for the top retailers highlighted in Table 7**

Timeframe	Case study summary	Case study reference
Pre-Baseline	Pre-Baseline <b>Asda Stores Ltd</b> reformulated the recipes and reduced the sugar content of nine puddings.	Case study 1
Pre-Baseline and Between Baseline to Year 1	Pre-Baseline <b>Tesco Foods Ltd</b> reformulated five individual cheesecakes and from Baseline to Year 1 the recipe of Apple Strudel was also reformulated.	Case study 39
Between Baseline to Year 1 and Post-Year 1	Between Baseline to Year 1 <b>Co-operative food</b> reformulated the recipes of two cheesecakes, and Post-Year 1 thirteen additional puddings were reformulated.	Case study 10
Post-Year 1	Post-Year 1 <b>J Sainsbury's</b> reformulated the recipes and reduced the sugar content of eleven single serve chilled pot desserts.	Case study 18
Post-Year 1	Post-Year 1 <b>Morrisons Ltd</b> reformulated the recipes and reduced the sugar content of eighteen chilled desserts.	Case study 27

Post-Year 1	Post-Year 1 <b>Waitrose Ltd</b> reformulated the recipes and reduced the sugar content of fifteen mid-tier chilled desserts.	Case study 42
-------------	--	---------------

For each of the top 10 retailers in table 7, table 9 shows the brand with the highest sugar sales in year 1. Three retailers show increases in average sugar content between baseline and year 1 in their top sugar contributing brand whilst 2 retailers show reductions of at least 2%.

**Table 9: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 10 retailers (listed in alphabetical order by business)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)
Aldi Stores Ltd	Hollylane (Aldi) Small Pies	28.0 *
Asda Stores Ltd	Asda Bakers Selection Chilled Traditional	29.0 ↑
Co-operative food	Co-op Loved By Us Chilled Trifle	15.3 -
Iceland Foods Ltd	Iceland Frozen Cakes	19.6 ↓
J Sainsbury's	Sainsbury By Chilled Traditional	27.4 ↑
Lidl UK GMBH	Lidl Thick+Creamy Ready To Serve Custard	13.0 *
Marks and Spencer	M&S Chilled Traditional	26.5 -
Morrisons Ltd	Morrisons Kitchen Chilled Trifle	15.7 -
Tesco Food Stores Ltd	Tesco Chilled Trifle	17.3 ↑
Waitrose Ltd	Waitrose Chilled Traditional	23.3 ↓


*	Comparable data not available
-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

Table 10 shows the top 20 retailer (own brand) pudding brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt. Four of the top 20 brands have average sugar content below the year 1 guideline value. Six brands saw reductions of at least 2% in their sugar levels in year 1 with one of these showing an increase in calories; and 4 brands saw increases in sugar of at least 2%.

**Table 10: Sugar content and changes in other nutrients for top 20 retailer pudding brands by total sugar sales in 2017 (listed in alphabetical order)**

Brand	Sugar (g/100g)	Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Aldi Ready To Serve Custard*	11.3			
Co-op Loved By Us Chilled Trifle	15.3 -	↑	↑	↑
Hollylane (Aldi) Small Pies*	28.0			
Iceland Frozen Cakes	20.5 ↓	↓	-	↑
M&S Chilled Other Dessert	20.0 -	↑	↑	↓
M&S Chilled Traditional	26.5 -	↑	-	-
M&S Chilled Trifle	13.7 ↑	-	-	-
Morrisons Kitchen Chilled Traditional	33.5 ↑	↑	↑	↑
Morrisons Kitchen Chilled Trifle	15.7 -	-	-	-
Morrisons Small Pies*	37.0			
Sainsbury's By Chilled Other Dessert	19.9 ↓	↑	↑	↑
Sainsbury's By Chilled Traditional	27.4 ↑	-	-	↑
Sainsbury's By Chilled Trifle	17.3 -	-	-	↑
Tesco Cheesecake	25.7 ↓	-	-	↓
Tesco Chilled Crème Caramel	19.3 -	-	-	-
Tesco Chilled Mousse	19.1 ↓	-	-	-
Tesco Chilled Traditional	25.6 ↓	↓	-	-
Tesco Chilled Trifle	17.3 ↑	↑	↑	↑
Tesco Gateaux/Layer Cakes	26.1 -	↑	-	-
Tesco Ready To Serve Desserts	24.6 ↓	↓	↓	-

*	Comparable data not available
-	No change
↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)

 Average sugar value of brand is at or below the combined in-home guideline figure for year 1 (16.6g)

## Single serve product analysis across retailers and manufacturers

Table 11 shows calories per portion in the baseline year and year 1 for the top 20 selling single serve pudding products. Two of the top 20 selling products are showing reductions of up to 3% in calories per portion and thirteen products are showing no change. None of the top 20 brands have average sugar content at or below the year 1 guideline value.



**Table 11: Calories per portion at baseline and year 1 for the top 20 single serve pudding products across retailers and manufacturers based on total calorie sales in year 1 (listed in alphabetical order)**

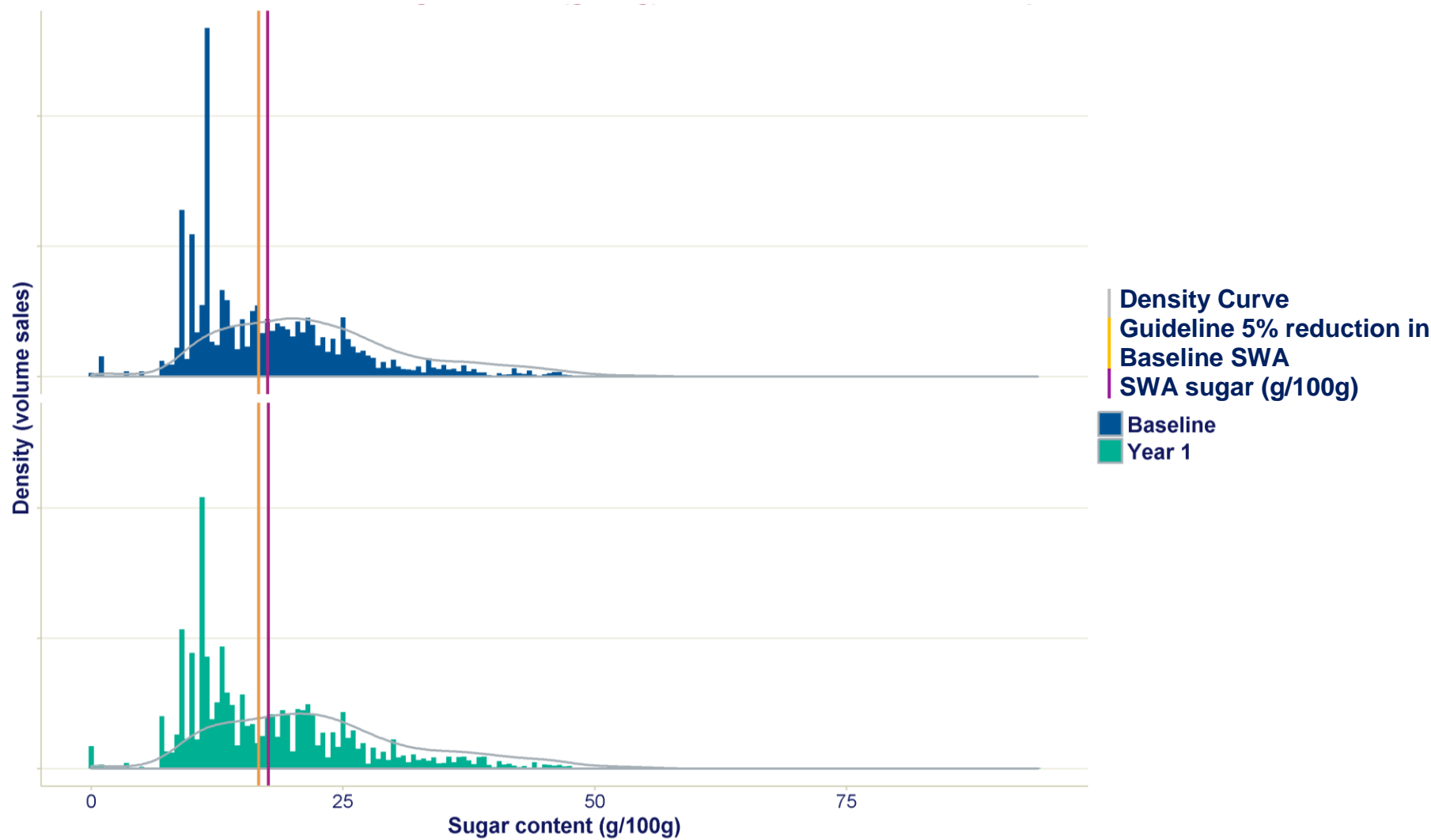
Product	Baseline Calories per portion (kcal)	Year 1 Calories per portion (kcal)	Change in calories per portion
Alpro Devlishly Dark Chocolate (500g)	104	118	13%
Ambrosia Devon Custard Creamy & Delicious (500g) (4x125g)	124	124	0%
Ambrosia Rice Pudding (500g)	130	126	-3%
Cadbury Layers Of Joy Chocolate Trifle (2x90g)	234	234	0%
Cadbury Pots Of Joy Caramel (4x70g)	151	151	0%
Cadbury Pots Of Joy Milk Chocolate (4x70g)	158	157	-1%
Morrisons Kitchen Strawberry Trifle (3x135g)	159	159	0%
Morrisons Raspberry Trifles 3pk (3x135g)	166	166	0%
Müller Limited Edition Banana & Toffee Rice (190g)	91	91	0%
Müller Rice 3x Original 3x Strawberry (6x180g)	n/a	182	*
Müller Rice 3x Raspberry 3x Apple (6x180g)	n/a	189	*
Müller Rice Apple (180g)	193	193	0%
Müller Rice Original (180g)	182	182	0%
Müller Rice Red Fruit 6 Pack (180g)	n/a	193	*
Müller Rice Strawberry (180g)	191	191	0%
Müller Rice Vanilla Custard (180g)	200	200	0%
Nestlé Aero Milk Choc Bubbly Mousse (236g)	94	94	0%
Sainsbury's By Egg Custard Tarts (4pk)	n/a	232	*
Tesco Creme Caramel (6x100g)	110	110	0%
Tesco Everyday Value Chocolate Mouse (240g)	85	85	0%

n/a – Not available

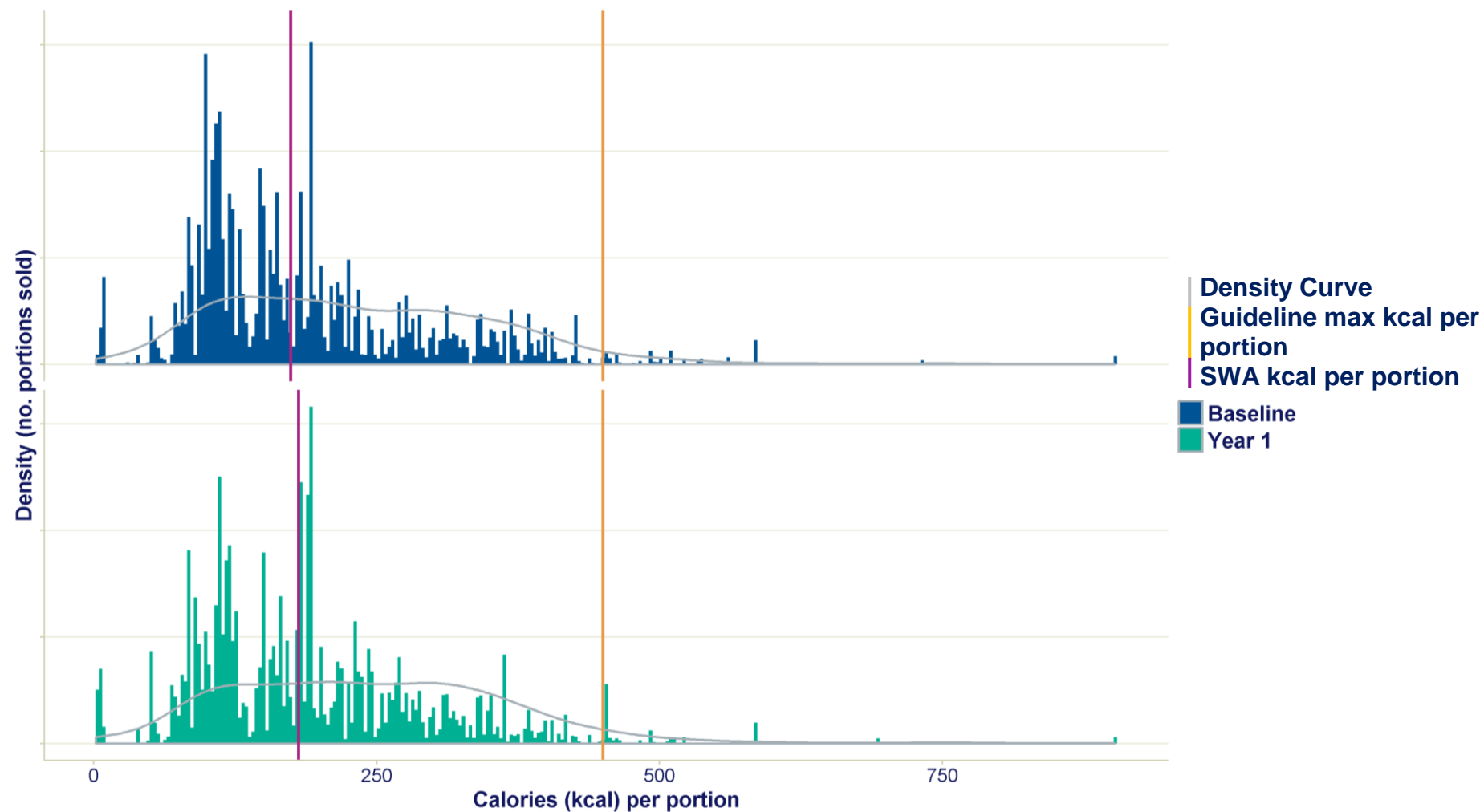
\* Comparable data not available

Figures 1 and 2 show the distribution of total sugar (g/100g) and calories per portion for all pudding products with real nutrition information in the Kantar Worldpanel datasets at baseline and year 1.

Figure 1: Distribution of total sugar (g/100g) for retailer and manufacturer puddings



**Figure 2: Distribution of calories per portion (kcal) for single serve retailer and manufacturer puddings**



## Puddings in the out of home sector

Table 12 shows updated baseline statistics for puddings purchased out of the home. Purchases (volume sales) are based on the reported volume of product consumed. The sales weighted average (SWA) total sugar level (g/100g) for puddings in the out of home sector was 22.8g per 100g in 2017. This can not be directly compared with the figure published for 2015 due to a change in data supplier and improved data coverage (see the methodology section of the report for more information about the updated baselines for out of home).

The out of home sales weighted average for total sugar is 30% higher than the equivalent figure for puddings purchased for in-home consumption.

**Table 12: Puddings: updated baseline statistics for out of home consumption, 2017**

	2017 (updated Baseline)
Baseline sales weighted average (SWA) total sugar content (g/100g)	22.8g
Range of total sugar content across products in category (min-max, g/ 100g)	0.9g – 97g
SWA calories per portion	422 kcal

Table 13 shows the top 10 sellers of puddings out of home and the SWA total sugar levels and calories per portion where they are available. The number of products used in the SWA calculation is shown in the table. Nutrition information is only available for a limited number of businesses and no information is available for 2015 and hence only 2017 data are shown.

**Table 13: SWA sugar (g/100g) and calories per portion (kcal) for the top 10 sellers\* of puddings out of home in year 1 (2017), where matched nutrition data are available, listed in alphabetical order by business**

Business	2017			
	sugar (g/100g)		calories per portion	
	SWA	number of products	SWA	number of products
Beefeater	26.9	4	565	25
Brewers Fayre	20.0	6	537	20
Burger King	n/a	n/a	n/a	n/a
Caffè Nero	28.3	12	349	12
Costa Coffee	32.0	13	316	13
Greggs	26.9	3	306	3
Harvester	39.0	2	629	10
JD Wetherspoon	n/a	n/a	635	6
McDonald's	14.8	8	256	8
Toby Carvery	16.7	12	650	12

n/a – Nutrition information not available in the OOH dataset, therefore SWA calculation is not possible.

\*Top 10 sellers of puddings have been ranked based on reported volume of product type consumed from each business.

For the businesses that are in table 13, the case studies presented in table 14 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 14: Case study summary for the top businesses highlighted in Table 13**

Timeframe	Case study summary	Case study reference
Pre-Baseline, between Baseline to Year 1 and Post-Year 1	Pre-Baseline, between Baseline and Year 1 and Post-Year 1 <b>Whitbread</b> reformulated recipes across both the Beefeater and Brewers Fayre pudding range.	Case study 43

Table 15 shows the top 10 pudding product types purchased in the out of home sector in terms of estimated sugar sales. There is a range of sugar values in the top 10 including 3 product types below the category average for year 1.

**Table 15: Average sugar levels (g/100g) for the top 10 pudding product types purchased\* out of home (by total sugar sales\* in year 1), listed in alphabetical order by business**

Business	Top sugar contributing product type (by total sugar sales in Year 1)	Average sugar content of top contributing product type (g/100g)
Beefeater	Cheesecake	27.8
Beefeater	Pie sweet	28.7
Caffè Nero	Cheesecake	23.0
Costa Coffee	Tart sweet	32.0
Harvester	Cookie	37.9
Harvester	Sticky toffee pudding	42.8
McDonald's	Pie sweet	14.8
Pizza Express	Cheesecake	23.3
Toby Carvery	Cheesecake	16.3
Toby Carvery	Crumble	17.2

\*Purchased and total sugar sales relate to the reported volume of product consumed



 Average sugar value is at or below the OOH updated baseline (2017) figure (22.8g)

Table 16 shows the top 10 pudding product types purchased out of home in terms of total calories, listed alphabetically by business. Eight of the top 10 puddings have an average calories per portion above the guideline maximum of 550 kcal.

**Table 16: Average calories per portion (kcal) for the top 10 pudding product types purchased\* out of home (by total calorie sales\* in year 1), listed in alphabetical order by business**

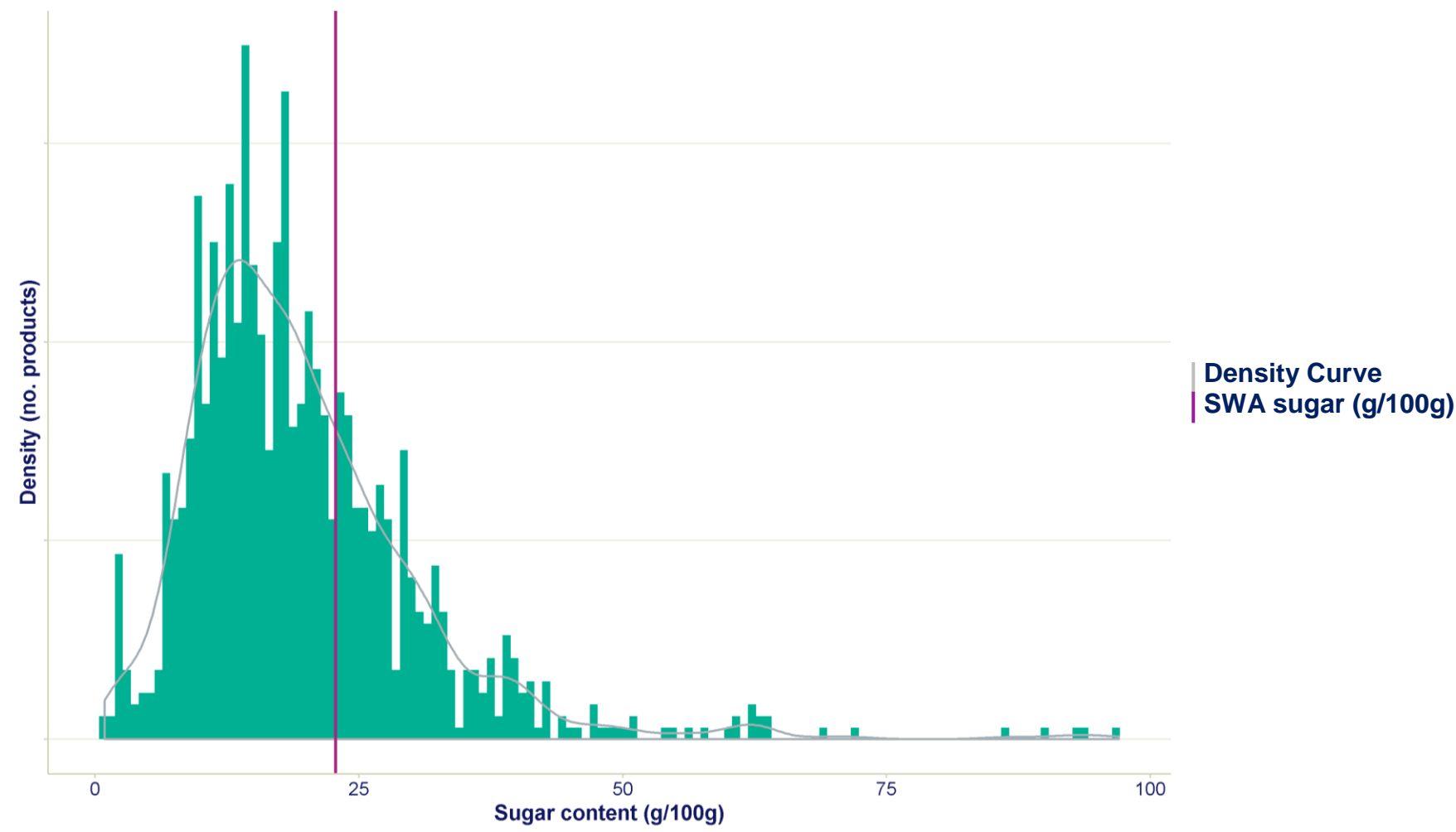
Business	Top calorie contributing product type (by total calorie sales in Year 1)	Average calorie content of top contributing product type (kcal per portion)
Costa Coffee	Tart sweet	316
Harvester	Cheesecake	684
Harvester	Cookie	721
Hungry Horse	Cheesecake	595
JD Wetherspoon	Cheesecake	590
JD Wetherspoon	Cookie	756
JD Wetherspoon	Crumble	625
McDonald's	Pie sweet	260
Toby Carvery	Cheesecake	742
Toby Carvery	Eton mess	914

\*Purchased and total calorie sales relate to the reported volume of product consumed

 Average calorie per portion is above the guideline maximum figure (550kcal)

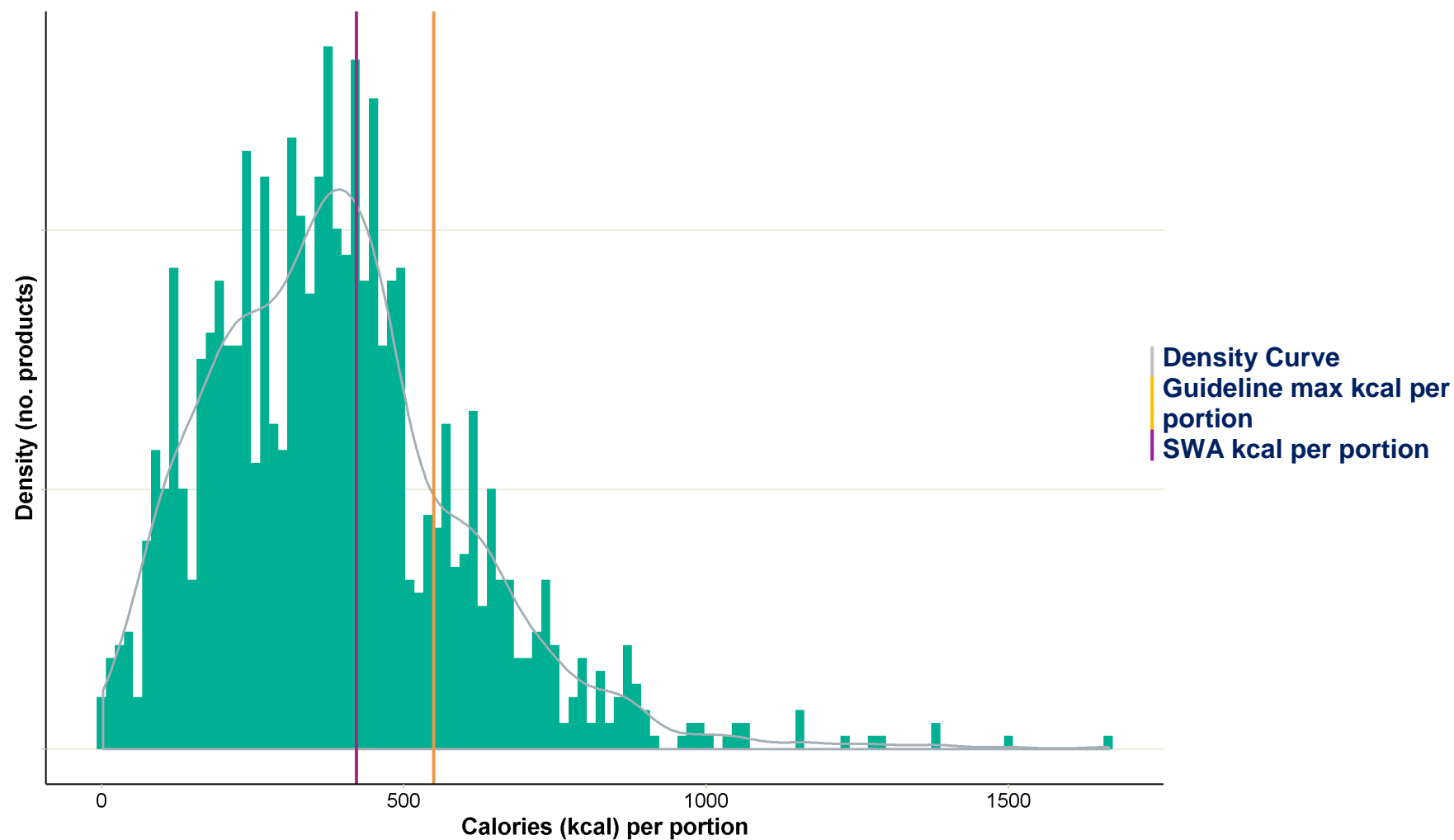
Figures 3 and 4 show the distribution of total sugar (g/100g) and calories per portion for puddings purchased out of home based on the available nutrition data for year 1 (2017).

**Figure 3: Distribution of total sugar (g/100g) for pudding product types purchased\* out of home, year 1 (2017)**



\*Pudding product types purchased relate to the reported volume of product consumed

**Figure 4: Distribution of calories per portion (kcal) for pudding product types purchased\* out of home, year 1 (2017)**



\*Pudding product types purchased relate to the reported volume of product consumed



## Year 1 progress: sweet spreads and sauces - analysis of average sugar levels from baseline to year 1

### Summary

This section presents for retailer own brand and manufacturer branded products, category and business level analysis of sugar content between baseline and year 1 for sweet spreads and sauces. Overall, there has been a 5% reduction in SWA total sugar levels (g/100g).

Data on calories per portion for retailer own brand and manufacturer branded products are not presented as there are very few sweet spreads and sauces sold as single serve items in these sectors.

Out of home data is not available for this analysis for sweet spreads and sauces.

Datasets based on consumer panel food purchase surveys have been used for these analyses. The baseline year is 2015. For year 1, data for retailers and manufacturers are for the year ending September 2017, and for the out of home sector are for the year ending August 2017. Some businesses have made reduction and reformulation changes that will not be captured within this timeframe, and they will be reported in subsequent assessments of progress

### Sweet spreads and sauces in the retail and manufacturing sectors

The analysis in this section is based on sweet spreads and sauces with real nutrition information in the retail and manufacturing sector taken from Kantar Worldpanel datasets. In 2017 this covered 93% of all the relevant products in the dataset and 99% of the volume sold for retailer own brand and manufacturer branded products.

Table 1 shows that SWA total sugar levels (g/100g) in retailer own brand and manufacturer branded sweet spreads and sauces combined fell by 5% between baseline and year 1. The range of total sugar levels per 100g in products available on the market was largely unchanged.

**Table 1: Sales weighted average total sugar levels (g/100g) and ranges of total sugar (g/100g) for sweet spreads and sauces at baseline (2015) and year 1 (2017) for retailers and manufacturers combined**

	Baseline	Year 1	% change
Number of products with real nutrition information	320	313	
Proportion of all products in the category that have real nutrition information	84%	93%	
Proportion of all volume sales that have real nutrition information	96%	99%	
Baseline for retailer and manufacturer sales weighted average (SWA) total sugar content (g/100g)	31.4g	29.9g	-5%
Range of total sugar content across products in category (min-max, g/100g)	0.9g – 85g	0.9g - 87g	

From table 2 it can be calculated that SWA total sugar levels reduced by 5% for manufacturers and increased by 1% for retailers between the baseline and year 1.

**Table 2: Sales weighted average total sugar levels (g/100g) for sweet spreads and sauces for manufacturers and retailers at baseline (2015) and year 1 (2017)**

	Baseline		Year 1	
	Manufacturers	Retailers	Manufacturers	Retailers
Market share (% volume sales)	60%	40%	58%	42%
SWA total sugar content (g/100g)	39.7g	18.8g	37.9g	19.0g

### Analysis by company and brand within the manufacturing sector


The top manufacturers have been separated into the 4 categories included within the sweet spreads and sauces category. Table 3 shows the percentage change in SWA sugar levels for the top 5 manufacturers on volume sales in the chocolate spread, peanut butter, dessert toppings/sauces and fruit spreads categories. Some businesses have future reductions in the pipeline or have completed reformulation which has not been captured in the datasets (see case studies in appendix 4).

Note that sales for only 4 manufacturers for fruit spreads and dessert toppings/sauces have been captured. Products that are included in the fruit spreads category are those that do not fall under the EU jam definition and legislation which defines a minimum sugar content. Many of the products included in the analysis have lower sugar content than regulated jams, extra jams and preserves and their high fruit content means it can be technically difficult to reformulate these products.

For 6 of the businesses where data was available and we had permission to publish, there was a reduction in sugar SWA (g/100g). The largest reductions in SWA sugar values were for peanut butter and for dessert toppings and sauces. Three businesses have SWA sugar values at or below the combined in-home guideline figure for year 1, and for 1 business this is the case for both fruit spreads and for peanut butter.

**Table 3: Percentage change in SWA total sugar for the top 5 manufacturers by market share in each sweet spreads and sauces category (listed in alphabetical order by business)**

Spread category	Business	% change in SWA (Year 1 vs Baseline)
Chocolate spread	Asia UK Trading Ltd	Data not comparable***
Chocolate spread	Ferrero Ltd	No permission
Chocolate spread	Hain Daniels	No permission
Chocolate spread	Mars Chocolate UK	-2.0%
Chocolate spread	Wilhelm Reuss GMBH Co.	No response
Dessert toppings/sauces	Agros Nova Sp.	No response
Dessert toppings/sauces	Askeys Ltd	No response
Dessert toppings/sauces	Premier Foods	-1.6%
Dessert toppings/sauces	Tate+Lyle Sugar Ltd	-4.3%
Fruit spreads	F.Duerr & Sons Ltd	0.0%
Fruit spreads	Mars Chocolate UK	Data not comparable
Fruit spreads	Meridian Ltd	Data not comparable
Fruit spreads	St Dalfour	0.4%
Peanut butter	Hain Daniels	No permission
Peanut butter	Hormel Foods International	-1.0%
Peanut butter	Kallo Foods	-2.4%
Peanut butter	Meridian Ltd	-18.5%
Peanut butter	The Hershey Company	Data not comparable

 SWA sugar value is at or below the combined in-home guideline figure for year 1 (Chocolate spread: 52.1g; Dessert toppings/sauces: 45.4g; Fruit spreads: 41.8g; Peanut butter: 4.7g)

\*\*\*No comparable data for baseline and year 1 and PHE were unable to contact regarding the publication of SWA related information

For each of the top manufacturers in table 3, table 4 shows the brands with the highest sugar sales in year 1 in each sweet spreads and sauces category. In most cases there has been no change in the sugar content of the highest contributing brand. It's important

to note that for some products with low sugar levels, such as peanut butters, a small change in sugar can lead to a larger percentage change. It has also been reported that naturally occurring sugars in peanuts have increased, impacting on sugar levels in peanut butters.

Products in the fruit spread brands of St Dalfour, F.Duerr & Sons Ltd and Meridian Ltd contain no added sugar and the sugar content comes from the sugar in fruit.

**Table 4: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 5 manufacturers in each sweet spread and sauces category (listed in alphabetical order by business)**

Spread category	Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)
Chocolate spread	Asia UK Trading Ltd	Nutsy Chocolate Spread	60.0 *
Chocolate spread	Ferrero Ltd	Nutella Chocolate Spread	56.8 -
Chocolate spread	Hain Daniels	Cadbury Chocolate Spread	54.0 -
Chocolate spread	Mars Chocolate UK	Maltesers Chocolate Spread	54.1 -
Chocolate spread	Wilhelm Reuss GMBH Co.	Impress (Wihlm) Choc Spread	59.6 -
Dessert toppings/sauces	Agros Nova Sp.	Lowicz Dessert Sauce	84.0 -
Dessert toppings/sauces	Askeys Ltd	Askeys Treat Dessert Sauce	72.3 ↑
Dessert toppings/sauces	Premier Foods	Bird's Ready To Serve Brandy Sauce	11.9 -
Dessert toppings/sauces	Tate+Lyle Sugar Ltd	Lyle's Squeezy Dessert Sauce	70.2 -
Fruit spreads	F.Duerr & Sons Ltd	Superjam NAS Fruit Spread	54.0 -
Fruit spreads	Mars Chocolate UK	Bounty Fruit Spread	51.2 *
Fruit spreads	Meridian Ltd	Meridian Organic Fruit Spread	27.9 *
Fruit spreads	St Dalfour	St Dalfour NAS Fruit Spread	53.1 -
Peanut butter	Hain Daniels	Sun-Pat Crunchy Peanut Butter	5.9 ↓
Peanut butter	Hormel Foods International	Skippy Peanut Butter	9.9 -
Peanut butter	Kallo Foods	Whole Earth Peanut Butter	3.1 ↑
Peanut butter	Meridian Ltd	Meridian Peanut Butter	4.6 ↓
Peanut butter	The Hershey Company	Reese's Chocolate Spread	51.2 *


*	Comparable data not available
-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

Table 5 shows the top 18 sweet spreads and sauces brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt. Four brands have average sugar values at or below the combined retailer and manufacturer guideline figure for year 1.

**Table 5: Sugar content and changes in other nutrients for top 5 sweet spreads and sauces brands in each sweet spread and sauces category by total sugar sales in year 1 (listed in alphabetical order)**

Spread category	Brand	Sugar (g/100g)	Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Chocolate spread	Cadbury Chocolate Spread	54.0 -	-	-	-
Chocolate spread	Impress (Wihlm) Choc Spread	59.6 -	-	-	-
Chocolate spread	Nature's Store Free From Chocolate Spread	58.0 -	-	-	-
Chocolate spread	Nutella Chocolate Spread	56.8 -	-	-	-
Chocolate spread	Nutsy Chocolate Spread*	60.0			
Dessert toppings/sauces	Askeys Crackin Dessert Sauce	39.4 -	↓	↑	↓
Dessert toppings/sauces	Askeys Treat Dessert Sauce	72.3 ↑	-	↑	-
Dessert toppings/sauces	Lowicz Dessert Sauce	84.0 -	-	↓	-
Dessert toppings/sauces	Lyle's Squeezy Dessert Sauce	70.2 ↓	-	-	↓
Fruit spreads	Bounty Fruit Spread*	51.2			
Fruit spreads	Meridian Organic Fruit Spread*	27.9			
Fruit spreads	St Dalfour Fruit Spread	53.4 ↓	↓	-	-
Fruit spreads	St Dalfour NAS Fruit Spread	53.1 -	-	-	↓
Peanut butter	Meridian Peanut Butter	4.6 ↓	-	↑	-
Peanut butter	Reese's Chocolate Spread*	51.2			
Peanut butter	Sun-Pat Crunchy Peanut Butter	5.9 ↓	-	-	↑
Peanut butter	Sun-Pat Smooth Peanut Butter*	6.4			
Peanut butter	Whole Earth Peanut Butter	3.1 ↑	-	-	-

*	Comparable data not available
-	No change
↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)


 Average sugar value of brand is at or below the combined in-home guideline figure for year 1 (Chocolate spread: 52.1g; Dessert toppings/sauces: 45.4g; Fruit spreads: 41.8g; Peanut butter: 4.7g)

## Analysis by retailer and brand within the retail sector

Table 6 shows the percentage change in SWA sugar levels for the top 5 businesses for each of the four sweet spreads and sauces categories. Note that for the fruit spreads category, sales were captured for only 1 retailer. The table shows that progress between the different sub-categories varies across the retailers. Four retailers had SWA sugar values at or below the combined in-home guideline figure for year 1.

**Table 6: Percentage change in SWA sugar for the top 5 retailers by market share in each sweet spread and sauces category (listed in alphabetical order by business)**

Spread category	Business	% change in SWA (Year 1 vs Baseline)
Chocolate spread	<b>Aldi Stores Ltd</b>	Data not comparable**
Chocolate spread	<b>Asda Stores Ltd</b>	0.9%
Chocolate spread	<b>J Sainsbury's</b>	-0.2%
Chocolate spread	<b>Lidl UK GMBH</b>	Data not comparable
Chocolate spread	<b>Tesco Food Stores Ltd</b>	3.9%
Dessert toppings/sauces	<b>Aldi Stores Ltd</b>	Data not comparable**
Dessert toppings/sauces	<b>Asda Stores Ltd</b>	-2.3%
Dessert toppings/sauces	<b>J Sainsbury's</b>	4.0%
Dessert toppings/sauces	<b>Marks and Spencer</b>	No permission
Dessert toppings/sauces	<b>Tesco Food Stores Ltd</b>	-15.6%
Fruit spreads	<b>Aldi Stores Ltd</b>	Data not comparable**
Peanut butter	<b>Aldi Stores Ltd</b>	Data not comparable**
Peanut butter	<b>Asda Stores Ltd</b>	8.3%
Peanut butter	<b>J Sainsbury's</b>	11.4%
Peanut butter	<b>Morrisons Ltd</b>	-3.3%
Peanut butter	<b>Tesco Food Stores Ltd</b>	Data not comparable

 SWA sugar value is at or below the combined in-home guideline figure for year 1  
(Chocolate spread: 52.1g; Dessert toppings/sauces: 45.4g; Fruit spreads: 41.8g; Peanut butter: 4.7g)

\*\*No comparable data for baseline and no permission given to publish SWA related information

For the businesses that are in table 6, the case studies presented in table 7 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 7: Case study summary for the top retailers highlighted in Table 6**

Timeframe	Case study summary	Case Study reference
Between Baseline to Year 1	<b>Lidl UK GMBH</b> reformulated the recipe and reduced the sugar content of both variants of Mister Choc Peanut Butter.	Case study 22
Between Baseline to Year 1	Between Baseline to Year 1 <b>Tesco Food Stores Ltd</b> reformulated the recipes and reduced the sugar content of five chocolate spreads	Case study 39

For each of the top retailers in table 6, table 8 shows the brand with the highest sugar sales in year 1 for chocolate spread, peanut butter, dessert toppings/sauces and fruit spreads. One retailer showed a reduction in the average sugar content of their top contributing dessert sauces brand whereas 2 retailers had increases in the average sugar content of their top contributing dessert sauces brand.

**Table 8: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 5 retailers in each spread category (listed in alphabetical order by business)**

Spread category	Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)
Chocolate spread	Aldi Stores Ltd	Aldi Chocolate Spread	54.0 -
Chocolate spread	Asda Stores Ltd	Asda Chocolate Spread	53.4 -
Chocolate spread	J Sainsbury's	Sainsbury Chocolate Spread	53.4 -
Chocolate spread	Lidl UK GMBH	Lidl Chocolate Spread	54.0 -
Chocolate spread	Tesco Food Stores Ltd	Tesco Value Choc Spread	55.0 -
Dessert toppings/sauces	Aldi Stores Ltd	Aldi Speciality Selected Dessert Sauce	14.0 -
Dessert toppings/sauces	Asda Stores Ltd	Asda Extra Special Dessert Sauce	31.6 ↓
Dessert toppings/sauces	J Sainsbury's	Sainsbury's By Dessert Sauces	39.3 -
Dessert toppings/sauces	Marks and Spencer	M&S Dessert Sauce	41.5 ↑
Dessert toppings/sauces	Tesco Food Stores Ltd	Tesco Finest Dessert Sauce	31.4 ↑
Fruit spreads	Aldi Stores Ltd	Aldi Fruit Spread	48.7 -
Peanut butter	Aldi Stores Ltd	Aldi Peanut Butter	5.3 -
Peanut butter	Asda Stores Ltd	Asda Peanut Butter	4.3 -
Peanut butter	J Sainsbury's	Sainsbury's By Peanut Butter	5.8 -
Peanut butter	Morrisons Ltd	Morrisons Peanut Butter	6.6 -
Peanut butter	Tesco Food Stores Ltd	Tesco Peanut Butter	4.5 -

-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

Table 9 shows the top 5 retailer sweet spreads and sauces brands in each category based on volume sales in year 1, and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt. Note that sales in the fruit spreads category were captured for only one retailer. It is estimated that the changes in the levels of other nutrients may be attributed to the removal of sugar from the recipe rather than the addition/increase of other ingredients ie the amount of other ingredients increases proportionally to sugar removal, resulting in a corresponding change in the overall nutrient content.

Three of the top retailer brands saw an increase of more than 2% in their average sugar levels between baseline and year 1, and 1 top retailer brand saw a decrease. All dessert toppings and sauces brands had average sugar content at or below the retailer and manufacturer combined guideline figure for year 1. Two peanut butter brands from



the same retailer had an average sugar content below the retailer and manufacturer combined guideline figure for Year 1.

**Table 9: Sugar content and changes in other nutrients (all in g/100g) for top 20 retailer sweet spreads brands by total sugar sales in 2017 in each sweet spread and sauces category (listed in alphabetical order)**

Spread category	Brand	Sugar (g/100g)	Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Chocolate spread	Aldi Chocolate Spread*	54.0			
Chocolate spread	Asda Chocolate Spread	53.4 -	↓	-	↓
Chocolate spread	Lidl Chocolate Spread*	54.0			
Chocolate spread	Tesco Chocolate Spread	57.0 ↑	-	-	↑
Chocolate spread	Tesco Value Choc Spread	55.0 -	-	-	-
Dessert toppings/sauces	M&S Dessert Sauce	41.5 ↑	-	↓	-
Dessert toppings/sauces	Sainsbury's By Dessert Sauces	39.3 -	-	-	↑
Dessert toppings/sauces	Sainsbury's Taste The Difference Dessert Sauce	30.1 -	↓	↓	↑
Dessert toppings/sauces	Tesco Dessert Sauce	14.1 ↓	↓	↑	↓
Dessert toppings/sauces	Tesco Finest Dessert Sauce	30.9 ↑	↑	↑	↑
Fruit spreads	Aldi Fruit Spread*	48.7			
Peanut butter	Aldi Peanut Butter*	5.3			
Peanut butter	Morrisons Peanut Butter	6.6 -	-	-	↓
Peanut butter	Sainsbury's By Peanut Butter	5.8 -	-	-	-
Peanut butter	Tesco Peanut Butter*	4.5			
Peanut butter	Tesco Value Peanut Butter	3.6 -	-	-	-

*	Comparable data not available
-	No change
↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)


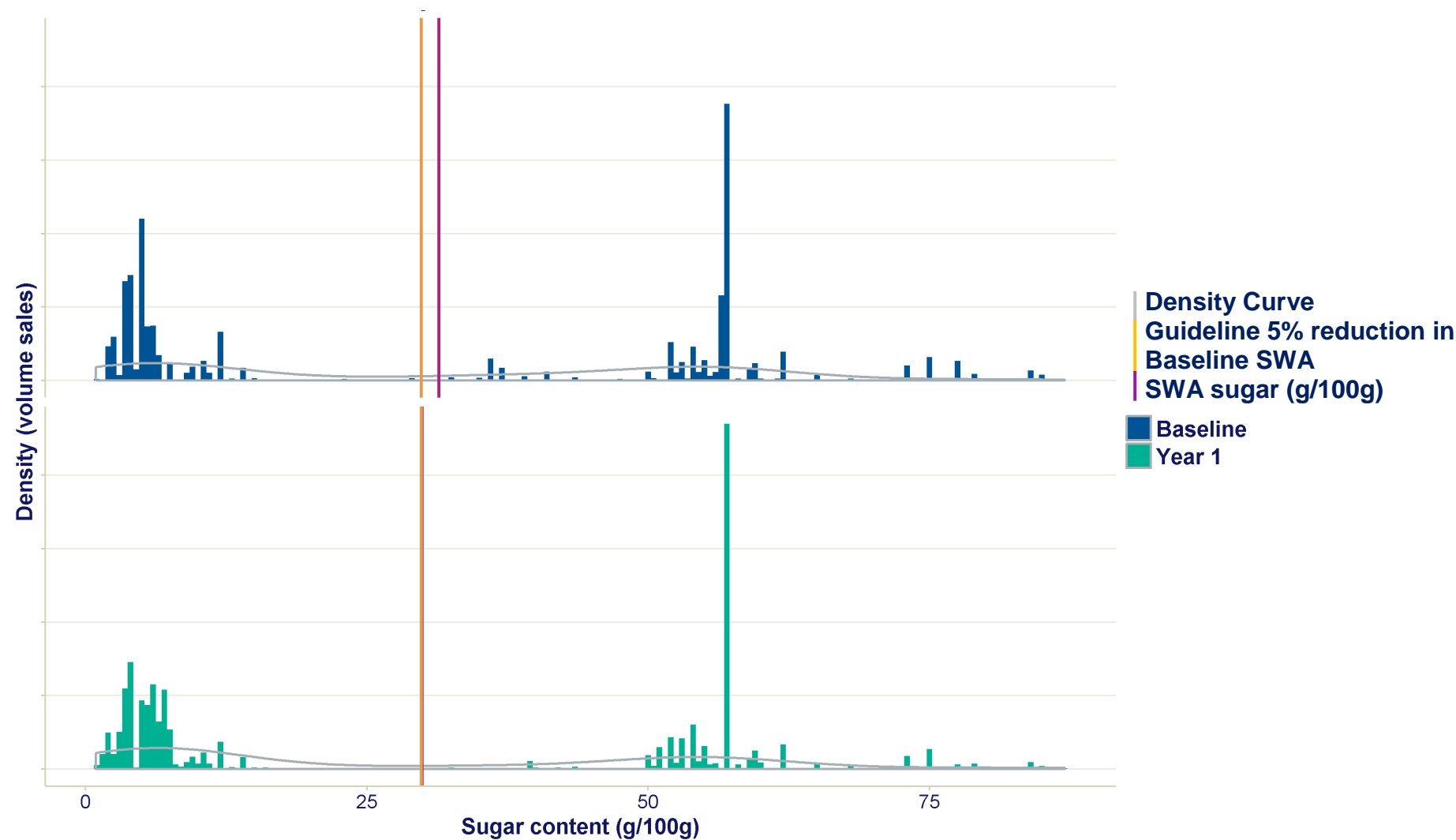
 Average sugar value of brand is at or below the combined in-home guideline figure for Year 1 (Chocolate spread: 52.1g; Dessert toppings/sauces: 45.4g; Fruit spreads: 41.8g; Peanut butter: 4.7g)

Figure 1 shows the distribution of total sugar content (g/100g) for sweet spreads and sauces products with real nutrition data in the Kantar Worldpanel dataset at baseline year and year 1.

Results for the out of home sector are not available for sweet spreads and sauces as there are no data available for this category in the out of home sector.



Figure 1: Distribution of total sugar content (g/100g) for retailer and manufacturer sweet spreads and sauces



# Year 1 progress: sweet confectionery - analysis of average sugar levels and calories per portion from baseline to year 1

## Summary

This section presents for retailer own brand and manufacturer branded products, category and business level analysis of sugar content and calories per portion between baseline and year 1 for sweet confectionery. Overall, there has been a 1% reduction in SWA total sugar levels (g/100g) and no change in SWA calories per portion.

Out of home results are not available for sweet confectionery as the sales and nutrition data available for year 1 for this category are not sufficiently comparable to produce robust results. This is something PHE will look to address for the next progress report.

Datasets based on consumer panel food purchase surveys have been used for these analyses. The baseline year is 2015. For year 1, data for retailers and manufacturers are for the year ending September 2017, and for the out of home sector are for the year ending August 2017. Some businesses have made reduction and reformulation changes that will not be captured within this timeframe, and they will be reported in subsequent assessments of progress.

## Sweet confectionery in the retail and manufacturing sectors

The analysis in this section is based on sweet confectionery products with real nutrition information in the retail and manufacturing sector taken from Kantar Worldpanel datasets. In 2017 this covers 62% of all the sweet confectionery products in the dataset and 86% of the volume of sweet confectionery products sold for retailer own brand and manufacturer branded products.

Table 1 shows that sales weighted average (SWA) total sugar levels (g/100g) for retailer own brand and manufacturer branded sweet confectionery combined fell by 1% between baseline and year 1. There was no change in average calories per portion compared to a revised baseline of 146 kcal (see appendix 2 for further information about the revised baselines).

Sugar free confectionery is not included in this category. However, stakeholders suggested that its impact on sales, and any shift in purchasing from sugar confectionery to sugar free confectionery, should be assessed. The data available for sugar free

confectionery in the Kantar Worldpanel dataset at baseline and year 1 was therefore reviewed. Sales information for sugar free products was limited to <1% of sales for the category and only a small amount of real nutrition information was available. Therefore, due to the level of uncertainty in the data analysis to measure change across the 2 periods, this was not conducted. PHE will monitor the change in sugar free confectionery products in future progress reports.

**Table 1: Sales weighted average total sugar levels (g/100g), ranges of total sugar (g/100g) and average single serve calories per portion (kcal) for sweet confectionery at baseline (2015) and year 1 (2017) for retailers and manufacturers combined**

	Baseline	Year 1	% change
Number of products with real nutrition information	1828	2025	
Proportion of all products in the category that have real nutrition information	61%	62%	
Proportion of volume sales in the category with real nutrition information	86%	86%	
Retailer and manufacturer sales weighted average (SWA) total sugar content (g/100g)	61.3g	60.7g	-1%
Range of total sugar content across products in category (min-max, g/100g)	0.1g - 99.8g	0.1g – 99.2g	
Range of total sugar content in top 20 products by volume sugar sales (min-max, g/100g)	47g – 99g	47g – 99g	
SWA calories per portion (for single serve products)	149 kcal 146 kcal (revised)	146 kcal	0%

Table 2 shows that SWA total sugar levels reduced by 1% between the baseline and year 1 for both manufacturer branded and for retailer own brand products. SWA calories per portion compared with a revised baseline increased by 3% for retailers and there was no change for manufacturers.

**Table 2: Sales weighted average total sugar levels (g/100g) and average calories per portion (kcal) for sweet confectionery for manufacturers and retailers at baseline (2015) and year 1 (2017)**

	Baseline		Year 1	
	Manufacturers	Retailers	Manufacturers	Retailers
Market share (% volume sales)	66%	34%	66%	34%
SWA total sugar content (g/100g)	61.3g	61.2g	60.6g	60.8g
SWA calories per portion (for single serve products)	134 kcal 128 kcal (revised)	209 kcal 212 kcal (revised)	128 kcal	219 kcal

### Analysis by company and brand within the manufacturer sector

Table 3 shows the percentage change in SWA total sugar per 100g for the top 10 sweet confectionery manufacturers based on volume sales. Five businesses showed a reduction in the SWA sugar levels. Two businesses showed an increase in their SWA sugar levels. However, one of these was one of 3 businesses that had SWA sugar levels at or below the in-home guideline figure for year 1.

**Table 3: Percentage change in SWA total sugar for the top 10 manufacturers by market share (listed in alphabetical order by business)**

Business	% change in SWA (Year 1 vs Baseline)
Dunhills P L C	-0.4%
Fox's Confectionery	No response
J W Thornton Ltd	No permission
Mondelez	-0.2%
Nestlé UK and Ireland	-1.0%
Perfetti Van Melle	-4.2%
Storck	-2.4%
Swizzels Matlow	No response
Tangerine Confectionery	4.9%
The Wrigley Co. Ltd	0.2%

 SWA sugar value is at or below the combined in-home guideline figure for Year 1 (58.2g)

For the businesses that are in table 3, the case studies presented in table 4 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 4: Case study summary for the top manufacturers highlighted in Table 3**

<b>Timeframe</b>	<b>Case study summary</b>	<b>Case study reference</b>
Pre-Baseline and Post Year 1	Pre-Baseline <b>Nestlé UK and Ireland</b> achieved sugar reduction in twelve Rowntree's products and portion size reduction in Polo Fruits. Post-Year 1 30% reduced sugar Rowntree's products are scheduled to launch	Case study 29
Between Baseline to Year 1 and Post-Year 1	Between Baseline to Year 1 <b>Tangerine Confectionery</b> reduced the pack weight of five products and Post-Year 1 reformulated the Sweet Champions Christmas Selection pack.	Case study 37
Between Baseline to Year 1 and Post-Year 1	Between Baseline to Year 1 and Post-Year 1 <b>Perfetti Van Melle</b> introduced sugar free Chupa Chups lollipops, sugar free Fruittella and 30% reduced sugar Fruittella products.	Case study 41
Between Baseline to Year 1 and Post-Year 1	Between Baseline to Year 1 <b>Dunhills PLC</b> reduced the portion size of Haribo mini bags and Post Year-1 a 30% reduced sugar Fruitilicious product is scheduled to launch.	Case study 12

For each of the top 10 manufacturers in table 3, table 5 shows the brand with the highest sugar sales in year 1. Two brands saw reductions in their average sugar content between baseline and year 1 and 1 saw an increase. Tangerine Confectionery no longer own Butterkist products which are now manufactured by KP Snacks Ltd.

**Table 5: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 10 manufacturers (listed in alphabetical order)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)	
Dunhills P L C	Haribo Fruits	51.9	-
Fox's Confectionery	Fox's Mints	89.5	-
J W Thornton Ltd	Thorntons Special Toffee	47.9	-
Mondelez	Bassetts Jelly Babies	74.0	-
Nestlé UK and Ireland	Rowntree's Fruits	58.0	↓
Perfetti Van Melle	Mentos Mints	71.1	↓
Storck	Werther's Butter Candies	71.6	-
Swizzels Matlow	Swizzels Candy	86.6	-
Tangerine Confectionery	Butterkist Popcorn	47.9	↑
The Wrigley Co. Ltd	Skittles Fruits	87.4	-


-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

Table 6 shows the top 20 sweet confectionery brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt. Four of the top 20 saw reductions of at least 2% in their SWA sugar levels and 1 brand increased.

**Table 6: Sugar content and changes in other nutrients for top 20 sweet confectionery brands by total sugar sales in year 1 (listed in alphabetical order)**

Brand	Sugar (g/100g)	Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Bassetts Fruits	76.3 ↓	-	↑	↑
Bassetts Jelly Babies	74.0 -	-	-	-
Bassetts Liquorice Allsorts	62.0 -	↓	-	↓
Butterkist Popcorn	47.9 ↑	↑	↑	↑
Cadbury Eclairs	47.5 -	-	-	-
Candyland Candy*	72.1			
Fox's Mints	89.5 -	-	-	-
Fruittella Fruits	54.5 -	-	-	-
Haribo Fruits	52.8 -	-	↑	↑
Maynards Wine Gums	57.2 -	-	-	-
Mentos Mints	71.1 ↓	-	-	-
Rowntree's Fruits	58.0 ↓	-	↓	-
Rowntree's Mints	83.7 ↓	↓	-	-
Skittles Fruits	87.4 -	-	-	-
Starburst Fruits	83.0 -	-	-	-
Swizzels Candy	86.6 -	-	-	-
Swizzels Fruits	80.7 -	-	-	↑
Trebor Extra Strong	94.5 -	-	-	↓
Trebor Softmints	71.9 -	-	↓	-
Werther's Butter Candies	71.6 -	-	-	-

*	Comparable data not available
-	No change
↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)


 Average sugar value of brand is at or below the combined in-home guideline figure for year 1 (58.2g)

## Analysis by retailer and brand within the retail sector

Table 7 shows that by retailer there have been reductions of more than 2% in SWA total sugar levels for 3 retailers. Three retailers showed an increase of 2% or more.

**Table 7: Percentage change in SWA sugar for the top 10 retailers by market share (listed in alphabetical order by business)**

Business	% change in SWA (Year 1 vs Baseline)
Aldi Stores Ltd	Data not comparable**
Asda Stores Ltd	2.6%
Co-operative food	-0.9%
J Sainsbury's	2.3%
Lidl UK GMBH	Data not comparable
Marks and Spencer	No permission
Morrisons Ltd	3.7%
Tesco Food Stores Ltd	-4.2%
Waitrose Ltd	-5.5%
Wilko Retail Ltd	-3.2%

 SWA sugar value is above the combined in-home guideline figure for year 1 by less than 1% (58.8g)

\*\*No comparable data for baseline and no permission given to publish SWA related information

For the businesses that are in table 7, the case studies presented in table 8 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 8: Case study summary for the top retailers highlighted in Table 7**

Timeframe	Case study summary	Case Study reference
Between Baseline to Year 1	Between Baseline to Year 1 <b>Co-operative food</b> reformulated the recipes of nine products and achieved portion size reduction in four products.	Case study 10
Between Baseline to Year 1	Between Baseline to Year 1 <b>Lidl UK GMBH</b> reformulated and achieved sugar reduction in Jelly Beans.	Case study 22
Post-Year 1	Post-Year 1 <b>Morrisons Ltd</b> reformulated and reduced the pack size of five products.	Case study 27

For each of the top 10 retailers in table 7, table 9 shows the brand with the highest sugar sales in year 1. Three brands show reductions in average sugar content of at least 2% and 2 brands show increases of 2% or more.



**Table 9: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 10 retailers (listed in alphabetical order by business)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)	
Aldi Stores Ltd	Dominion Fruits	57.8	*
Asda Stores Ltd	Asda Chosen By You Fruits	59.2	↑
Co-operative food	Co-op Fruits	65.4	-
J Sainsbury's	Sainsbury's By Fruits	58.4	↓
Lidl UK GMBH	Sugar Land Fruits	58.8	*
Marks and Spencer	M+S Fruits	56.8	↓
Morrisons Ltd	Morrisons Fruits	61.6	↑
Tesco Food Stores Ltd	Tesco Fruits	61.1	-
Waitrose Ltd	Waitrose Fruits	63.5	↓
Wilko Retail Ltd	Wilko Mints	60.4	-


*	Comparable data not available
-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

Table 10 shows the top 20 sweet confectionery retailer brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt. For 4 of the top 20 brands there have been increases in average sugar content of at least 2% between baseline and year 1. For 4 brands there have been reductions of at least 2%.

**Table 10: Sugar content and changes in other nutrients for top 20 sweet confectionery retailer brands by total sugar sales in 2017 (listed in alphabetical order)**

Brand	Sugar (g/100g)	Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Asda Chosen By You Candy	63.8 ↑	-	↓	↓
Asda Chosen By You Fruits	60.1 ↑	↑	↑	↑
Asda Chosen By You Mints	75.1 ↑	-	↓	↓
Asda Fruits	54.7 ↓	-	↑	↑
Co-operative fruits	65.4 -	-	↓	↓
Dominion Fruits* (Aldi)	57.8			
Dominion Liquorice Allsorts* (Aldi)	65.4			
Dominion Mints* (Aldi)	78.3			
Marks & Spencer Fruits	56.9 ↓	↓	↓	-
Marks & Spencer Mints	71.5 ↓	-	↑	↑
Morrisons Fruits*	61.9			
Morrisons Mints	71.3 -	-	-	-
Sainsbury's By Fruits	57.8 ↓	-	-	-
Sainsbury's Mints	79.3 ↑	-	↓	-
Sugar Land Fruits* (Lidl)	59.1			
Tesco Candy	64.8 -	-	↓	↑
Tesco Fruits	61.1 -	-	-	↓
Tesco Mints	74.0 -	-	-	-
Tesco Value Fruits	55.2 -	-	-	-
Waitrose Fruits	64.0 -	-	-	-

*	Comparable data not available
-	No change
↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)

 Average sugar value of brand is at or below the combined in-home guideline figure for year 1 (58.2g)

## Single serve product analysis across retailers and manufacturers

Table 11 shows calories per portion for baseline and year 1 for the top 20 selling single serve sweet confectionery products. In most cases there has been no change in calories per portion.

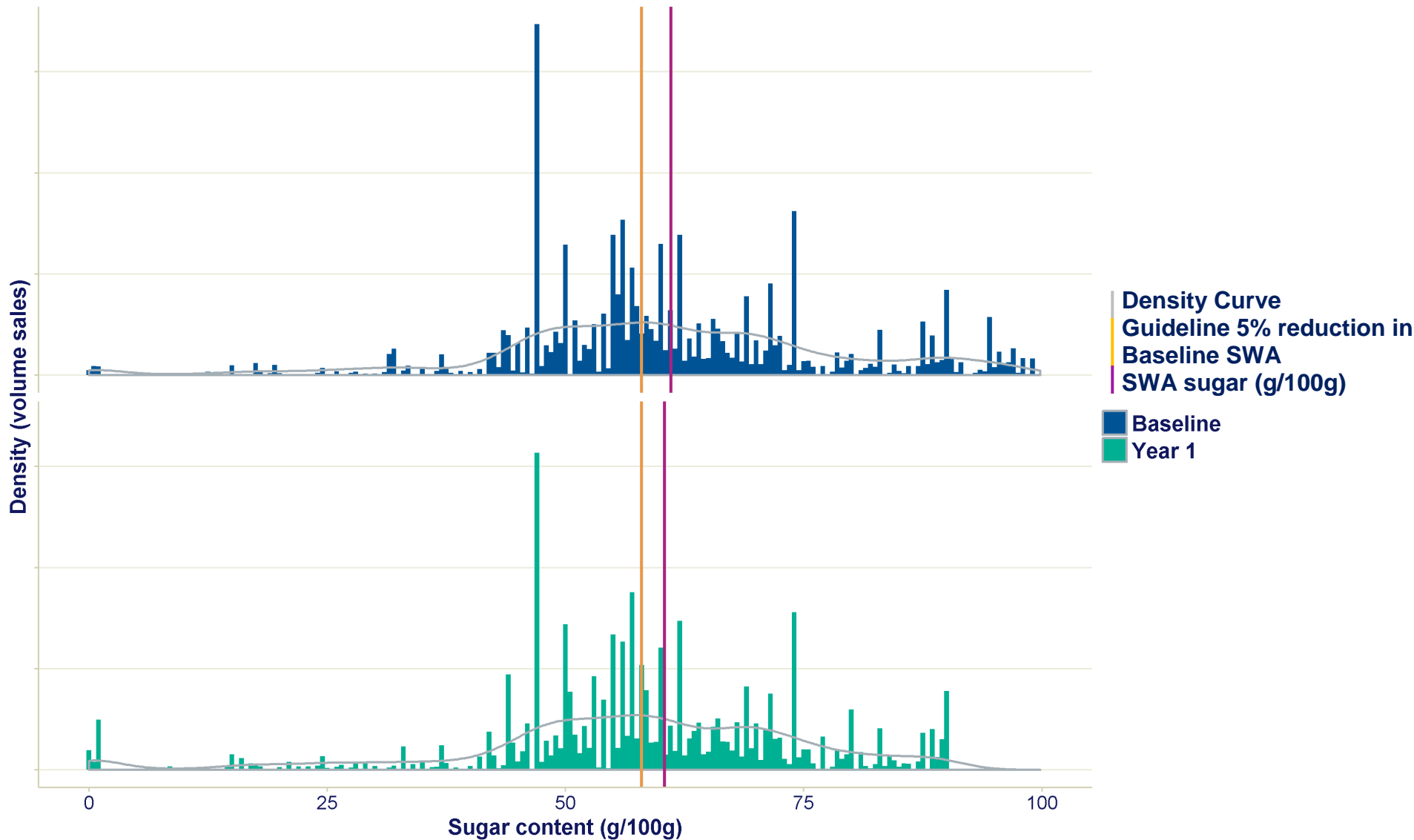
**Table 11: Calories per portion at baseline and year 1 for the top 20 single serve sweet confectionery products across retailers and manufacturers based on total sugar sales in year 1 (listed in alphabetical order)**

Product	Baseline Calories per portion (kcal)	Year 1 Calories per portion (kcal)	Change in calories per portion
Butterkist Cinema Sweet Popcorn (100g)	604	526	-13%
Butterkist Toffee Popcorn 6 Snack Packs (6x25g)	105	106	1%
Candy Land Chewy Nougat (100g)	380	380	0%
Candy Land Refreshers Natural Colours & Flavours (34g)	129	129	0%
Chewy Mix Fruit-tella Flavours From Nature With Fruit Juice Met Fruitsap (4x41g)	164	164	0%
Fruit-tella 4 Sticks Strawberry (4x41g)	164	164	0%
Haribo Roulette (175g)	86	86	0%
Kellogg's Fruit Winders Strawberry (6x17g)	67	67	0%
Kellogg's Strawberry & Apple Fruit Winders	67	67	0%
Maoam Bloxx (220g)	87	87	0%
Maynards Bassett's Wine Gums Fruit Flavour Gums (208g)	172	171	-1%
Metcalf's Skinny Popcorn Sweet 'n Salt (80g)	367	364	-1%
Nestlé Rowntree's Fruit Pastilles (210g)	184	185	1%
Panda Natural Original Liquorice (128g)	105	105	0%
Tesco Dolly Mixtures (85g)	332	332	0%
Tesco Strawberry Flavour Laces (75g)	266	266	0%
Tesco Strawberry Flavour Lances (75g)	274	274	0%
Tesco Strawberry Flavour Pencils (75g)	278	278	0%
The Foodie Market (Aldi) Cashew Crush Raw Fruit & Nut Bars 5 Pack (175g)	n/a	158	*
Walkers Sunbites Wholegrain Popcorn Sweet & Salty 6 Pack (6x14g)	n/a	59	*
* Comparable data not available			

Figures 1 and 2 show the distribution of total sugar (g/100g) and calories per portion for all sweet confectionery products with real nutrition information in the Kantar Worldpanel datasets at baseline and year 1.

Out of home results are not available for sweet confectionery as the sales and nutrition data available for year 1 for confectionery are not sufficiently comparable to produce robust results. This is something PHE will look to address for the next progress report.

Figure 1: Distribution of total sugar (g/100g) for retailer and manufacturer sweet confectionery



## Year 1 progress: yogurts and fromage frais - analysis of average sugar levels and calories per portion from baseline to year 1

### Summary

This section presents for retailer own brand and manufacturer branded products, category and business level analysis of sugar content and calories per portion between baseline and year 1 for yogurts and fromage frais. Overall there has been a 6% reduction in SWA total sugar levels (g/100g) and a 6% reduction in SWA calories per portion.

This section also presents for the out of home sector category and business level analysis of sugar content and calories per portion for year 1. Changes between baseline and year 1 are not reported for this sector due to data limitations that we are working to address for year 2.

Datasets based on consumer panel food purchase surveys have been used for these analyses. The baseline year is 2015. For year 1, data for retailers and manufacturers are for the year ending September 2017, and for the out of home sector are for the year ending August 2017. Some businesses have made reduction and reformulation changes that will not be captured within this timeframe, and they will be reported in subsequent assessments of progress.

### Yogurts and fromage frais in the retail and manufacturing sectors

The analysis in this section is based on yogurt and fromage frais products with real nutrition information in the retail and manufacturing sector taken from Kantar Worldpanel datasets. In 2017 this covers 80% of all the yogurts and fromage frais in the dataset and 92% of the volume of yogurts and fromage frais sold for retailer own brand and manufacturer branded products.

Table 1 shows that SWA total sugar levels (g/100g) in retailer own brand and manufacturer branded yogurts and fromage frais combined reduced by 6% between baseline and year 1. SWA calories per portion also reduced by 6% over the first year of the programme.

**Table 1: Sales weighted average total sugar levels (g/100g), ranges of total sugar (g/100g) and average single serve calories per portion (kcal) for yogurts and fromage frais at baseline (2015) and year 1 (2017) for retailers and manufacturers combined**

	Baseline	Year 1	% change
Number of products with real nutrition information	1001	1099	
Proportion of all products in the category that have real nutrition information	78%	80%	
Proportion of volume sales in the category with real nutrition information	85%	92%	
Retailer and manufacturer sales weighted average (SWA) total sugar content (g/100g)	12.4g	11.7g	-6%
Range of total sugar content across products in category (min-max, g/100g)	4g – 24.4g	2.5g - 23.1g	
Range of total sugar content in top 20 products by volume sugar sales (min-max, g/100g)	7.1g – 22.3g	6g – 20.3g	
SWA calories per portion (for single serve products)	129 kcal	121 kcal	-6%

From table 2 it can be calculated that SWA total sugar levels and average calories per portion reduced by 7% for yogurt and fromage frais manufacturer branded products between baseline and year 1. There was a 1% increase in SWA total sugar for retailer own brand products and a 2% increase in average calories per portion.

**Table 2: Sales weighted average total sugar levels (g/100g) and average calories per portion for single serve yogurts and fromage frais products for manufacturers and retailers at baseline (2015) and year 1 (2017)**

	Baseline (revised)		Year 1	
	Manufacturers	Retailers	Manufacturers	Retailers
Market share (% volume sales)	78%	22%	79%	21%
SWA total sugar content (g/ 100g)	12.2g	13.1g	11.3g	13.2g
SWA calories per portion (for single serve products)	127 kcal	133 kcal	118 kcal	135 kcal

### Analysis by company and brand within the manufacturing sector

Table 3 shows the percentage change in SWA sugar for the top 10 yogurt and fromage frais manufacturers based on volume sales. All of the branded manufacturers where data are comparable saw reductions in average sugar levels between baseline and year 1. Three businesses showed a reduction of over 10% in their SWA (g/100g). We have been made aware that some businesses have future reductions in the pipeline or have completed reformulation which has not been captured in the datasets (see case studies in appendix 4).

**Table 3: Percentage change in SWA total sugar for the top 10 manufacturers by market share (listed in alphabetical order by business)**

Business	% change in SWA (Year 1 vs Baseline)
<b>Alpro (UK) Ltd</b>	-10.1%
<b>Arla Foods</b>	-2.6%
<b>Danone UK Ltd</b>	-6.0%
<b>Emmi Schweiz AG</b>	-0.7%
<b>Lactalis Nestlé UK</b>	-1.4%
<b>Müller UK &amp; Ireland</b>	No permission
<b>Raisio</b>	Data not comparable***
<b>The Collective UK</b>	-17.2%
<b>Yeo Valley Farms Ltd</b>	-6.9%
<b>Yoplait UK Ltd</b>	-13.2%

 SWA sugar value is at or below the combined in-home guideline figure for year 1 (12.0g)

\*\*\*No comparable data for baseline and year 1. PHE were also unable to contact this business regarding the publication of SWA related information

For the businesses that are in table 3, the case studies presented in table 4 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 4: Case study summary for the top manufacturers highlighted in Table 3**

<b>Timeframe</b>	<b>Case study summary</b>	<b>Case study reference</b>
Pre-Baseline	Pre-Baseline <b>Yoplait UK Ltd</b> reformulated the recipes of Fruity Smooth Yogurt Raspberry/Strawberry, and three flavours of Frubes.	Case study 44
Between Baseline to Year 1, and Post-Year 1	Between Baseline to Year 1 <b>Müller UK &amp; Ireland</b> reformulated the recipes of three yogurts and Post-Year 1 reformulation was achieved in three additional yogurts.	Case study 28
Post-Year 1	Post-Year 1 <b>Lactalis Nestlé UK</b> reformulated and reduced the sugar content in products across the Munch Bunch Double Up, Ski Yogurt and Rachel's Yogurt range.	Case study 21

For each of the top 10 manufacturers in table 3, table 5 shows the brand with the highest sugar sales in Year 1. Eight of the top 10 sugar contributing brands saw reductions in the their average sugar levels between baseline and year 1.



**Table 5: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 10 manufacturers (listed in alphabetical order by business)**

Business	Top sugar contributing brand (by total sugar sales in Year 1)	Average Sugar content of top brand (g/100g)	
Alpro (UK) Ltd	Alpro Soya Yofu	9.3	↓
Arla Foods	Arla Skyr Yogurt	7.4	↓
Danone UK Ltd	Danone Actimel Yogurt Drink	12.4	↓
Emmi Schweiz AG	Onken Biopot Yogurt	13.2	↓
Lactalis Nestlé UK	Rachel's Organic Yogurt	13.8	-
Müller UK & Ireland	Müller Light Yogurt	7.4	↓
Raisio	Benecol Yogurt	9.9	*
The Collective UK	The Collective Dairy Yogurt	13.8	↓
Yeo Valley Farms Ltd	Yeo Valley Organic Yogurt	12.0	↓
Yoplait UK Ltd	Yoplait Petit Filous Fromage Frais	9.9	↓

*	Comparable data not available
-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

Table 6 shows the top 20 yogurt and fromage frais brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt. For 12 of the top 20 brands there has been a reduction of at least 2% in average sugar levels since the baseline and in these 12 brands there are no examples of reducing sugar with increasing calories or saturated fat.

**Table 6: Sugar content and changes in other nutrients for top 20 yogurt and fromage frais brands by total sugar sales in year 1 (listed in alphabetical order)**

Brand	Sugar (g/100g)	Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Danone Activia Intensively Creamy	12.4 -	-	-	↑
Danone Activia Fat Free Yogurt	7.8 ↓	↓	-	↑
Danone Activia Yogurt	12.3 ↓	↓	-	↓
Danone Light+Free Yogurt*	6.4			
Danone Oykos Yogurt	14.6 ↓	-	-	↑
Liberté Yogurt	11.7 ↓	↓	↓	-
Müller Bliss Corner	16.2 -	↓	-	-
Müller Crunch Corner	17.7 -	↑	↑	-
Müller Fruit Corner	14.6 -	↓	↓	↓
Müller Greek Corner*	15.5			
Müller Light Yogurt	7.4 ↓	↓	-	-
Munch Bunch Mega Double Up Fromage Frais	13.7 -	-	-	-
Onken Biopot Yogurt	13.2 ↓	↓	↓	-
Rachel's Organic Yogurt*	13.8			
The Collective Dairy Yogurt	13.8 ↓	↓	-	↓
Yeo Valley Organic Yogurt	12.0 ↓	↓	-	↓
Yoplait Petits Filous Frubes	11.7 ↓	↓	-	-
Yoplait Petits Filous Fromage Frais	9.9 ↓	↓	-	-
Yoplait Weight Watchers Yogurt	6.0 ↓	↓	-	↑
Yoplait Wildlife Choobs	12.0 ↓	↓	-	-

*	Comparable data not available
---	-------------------------------

-	No change
---	-----------

↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
---	---

↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)
---	---

	Average sugar value of brand is at or below the combined in-home guideline figure for year 1 (12.0g)
--	--

	Average sugar value of brand is above the year 1 combined in-home guideline by less than 1%
--	---

## Analysis by retailer and brand within the retail sector

Table 7 shows percentage change in SWA total sugar for the top 10 retailers (own brand) by volume sales. Two retailer own brand products have seen reductions in their SWA and 3 have seen increases. For four retailers the mix of products available in the Kantar Worldpanel dataset was not compable between the baseline and year 1.

**Table 7: Percentage change in SWA sugar for the top 10 retailers by market share (listed in alphabetical order by business)**

Business	% change in SWA (Year 1 vs Baseline)
<b>Aldi Stores Ltd</b>	Data not comparable**
<b>Asda Stores Ltd</b>	Data not comparable
<b>Co-operative food</b>	7.5%
<b>Iceland Foods Ltd</b>	Data not comparable
<b>J Sainsbury's</b>	0.7%
<b>Lidl UK GMBH</b>	Data not comparable
<b>Marks and Spencer</b>	No permission
<b>Morrisons Ltd</b>	-3.1%
<b>Tesco Food Stores Ltd</b>	-2.3%
<b>Waitrose Ltd</b>	0.7%

 SWA sugar value is at or below the combined in-home guideline figure for year 1 (12.0g)

\*\*No comparable data for baseline and no permission given to publish SWA related information

For the businesses that are in table 7, the case studies presented in table 8 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 8: Case study summary for the top retailers highlighted in Table 7**

Timeframe	Case study summary	Case study reference
Pre-Baseline	Pre-Baseline <b>Asda Stores Ltd</b> reformulated the recipes of seven flavours of low fat yogurts by reducing the sugar content of the yogurt base.	Case study 1
Pre-Baseline and Between Baseline to Year 1	Pre-Baseline <b>Co-operative food</b> reformulated the recipes of two low fat yogurts and from Baseline to Year 1 three Irresistible yogurts were reformulated.	Case study 10
Pre-Baseline and Between Baseline to Year 1	Pre-Baseline <b>Tesco Food Stores Ltd</b> reformulated five low fat yogurts and from Baseline to Year 1 Finest Black Cherry yogurt was also reformulated.	Case study 39
Pre-Baseline, Between Baseline to Year 1 and Post-Year 1	<b>Waitrose Ltd</b> reformulated the recipes of : eight mid-tier yogurts Pre-Baseline, the West Country yogurt range from Baseline to Year1, and three low fat yogurts Post-Year 1.	Case study 42

Between Baseline to Year 1	Between Baseline to Year 1 <b>J Sainsbury's</b> reformulated the recipes and reduced the sugar content of thirty-six own brand yogurts.	Case study 18
Post-Year 1	Post-year 1 <b>Morrisons Ltd</b> reformulated the recipes and reduced the sugar content of three low fat fruit yogurts.	Case study 27

For each of the top 10 retailers in table 7, table 9 shows the brand with the highest sugar sales in year 1. Four of these brands show reductions of more than 2% since the baseline. For the rest, where data are comparable, there is no change.

**Table 9: Sugar content per 100g for the top sugar contributing brand (based on total sugar sales) for the top 10 retailers (listed in alphabetical order by business)**

Business	Top sugar contributing brand (by sugar sales in Year 1)	Average Sugar content of top brand (g/100g)
Aldi Stores Ltd	Aldi Yogurt	12.0 *
Asda Stores Ltd	Asda Yogurt	11.6 *
Co-operative food	Co-op The Irresistible Yogurt	17.7 -
Iceland Foods Ltd	Iceland Yogurt	13.9 *
J Sainsbury's	Sainsbury's By Yogurt	12.6 ↓
Lidl UK GMBH	Lidl Yogurt	12.6 *
Marks and Spencer	M&S Yogurt	12.9 ↓
Morrisons Ltd	Morrisons Yogurt	13.6 ↓
Tesco Food Stores Ltd	Tesco Yogurt	12.3 ↓
Waitrose Ltd	Waitrose Essential Yogurt	14.1 -

*	Comparable data not available
-	No change
↓	Fall of at least 2%
↑	Increase of at least 2%

Table 10 shows the top 20 retailer own brands based on volume sales in year 1 and indicates where there have been changes in the average nutrition composition in terms of sugar, calories, saturated fat and salt. For 8 of the top 20 brands there has been a reduction of at least 2% in average sugar levels and for 1 brand there has been an increase of at least 2%.

**Table 10: Sugar content and changes in other nutrients for top 20 retailer yogurt and fromage frais brands by total sugar sales in 2017 (listed in alphabetical order)**

Brand	Sugar (g/100g)	Calories (kcal/100g)	Saturated fat (g/100g)	Salt (g/100g)
Aldi Everyday Essentials Fromage Frais*	12.0			
Aldi Fromage Frais *	12.3			
Aldi Twin Pot Yogurt *	20.3			
Aldi Yogurt *	12.0			
Asda Chosen By You Yogurt*	13.4			
Asda Extra Special West Country Yogurt	14.5 ↓	↓	-	-
Asda Smart Price Fromage Frais	11.9 -	-	-	↓
Asda Smart Price Yogurt	11.6 -	-	-	-
Asda Yogurt	11.6 ↓	↓	↓	↑
Lidl Simply Fromage Frais	11.0 -	-	-	-
Lidl Yogurt *	13.0			
Marks and Spencer Yogurt	12.9 ↓	↓	-	-
Morrisons Savers Yogurt	11.9 -	-	-	-
Morrisons Signature Yogurt	13.4 ↑	↑	-	-
Morrisons Yogurt	13.6 ↓	↑	↑	-
Sainsbury's Taste The Difference West Country Yogurt	13.4 ↓	-	-	-
Sainsbury's Yogurt	12.6 ↓	-	-	↑
Tesco Finest Yogurt	13.5 ↓	↓	↓	-
Tesco Value Yogurt	12.3 -	-	-	-
Tesco Yogurt	12.3 ↓	↓	-	-

*	Comparable data not available
---	-------------------------------

-	No change
---	-----------

↓	Fall of at least 2% for sugar/calories (10% for saturated fat/salt)
---	---

↑	Increase of at least 2% for sugar/calories (10% for saturated fat/salt)
---	---

	Average sugar value of brand is at or below the combined in-home guideline figure for year 1 (12.0g including lactose allowance)
--	--

	Average sugar value of brand is above the year 1 combined in-home guideline by less than 1%
--	---

## Single serve product analysis across retailers and manufacturers

Table 11 shows calories per portion in the baseline year and year 1 for the top 20 selling single serve yogurt and fromage frais products. Three of the top 20 selling products are showing reductions in calories per portion and 8 products are showing no change.

**Table 11: Calories per portion at baseline and year 1 for the top 20 single serve yogurt and fromage frais products across retailers and manufacturers based on total calorie sales in year 1 (listed in alphabetical order)**

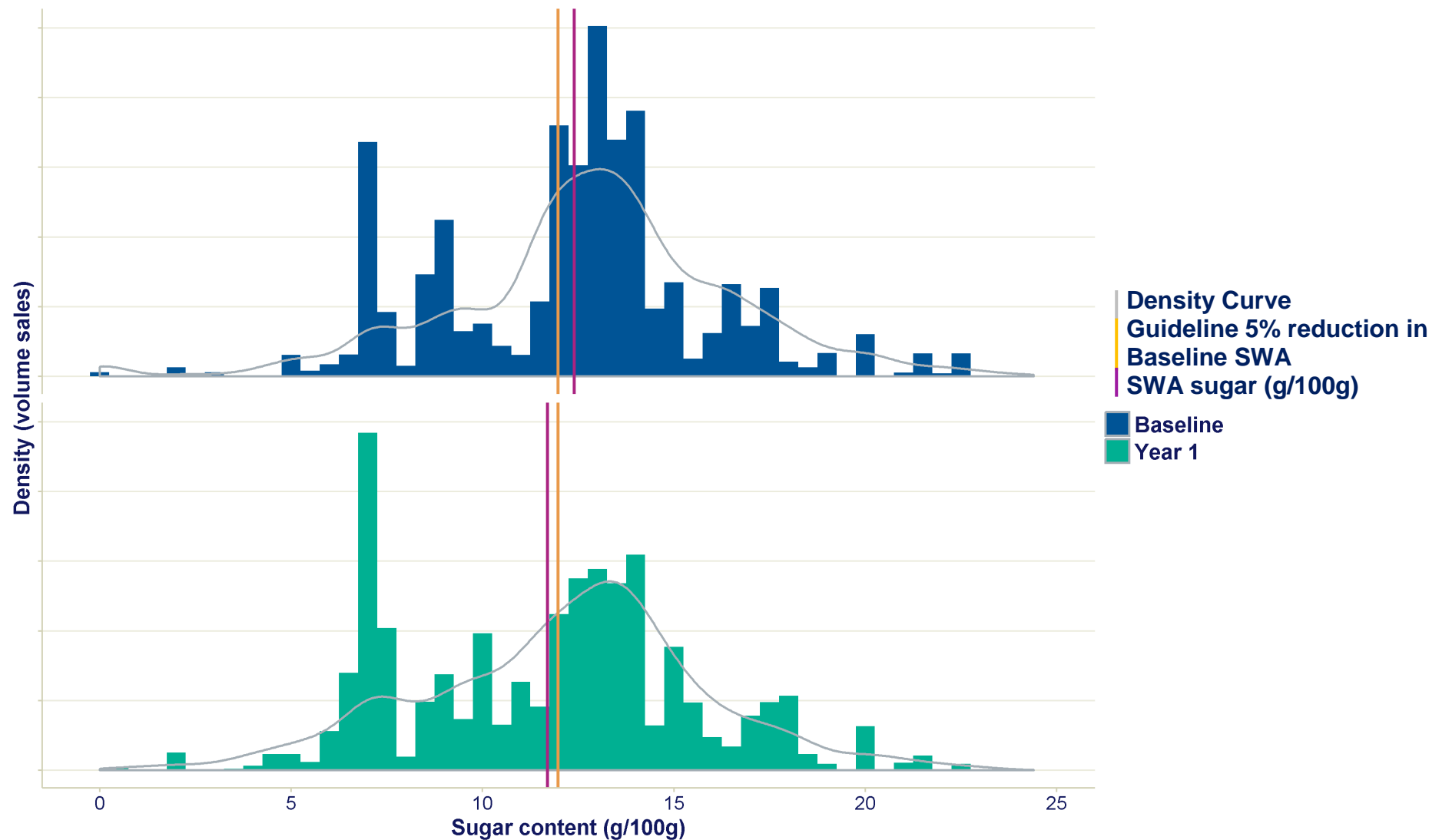
Product	Baseline Calories per portion (kcal)	Year 1 Calories per portion (kcal)	Change in calories per portion
Danone Activia 0% Fat 2 Cherry 2 Forest Fruits 2 Raspberry 2 Strawberry	73	64	-12%
Danone Activia Bifidus Actiregularis Peach	70	71	1%
Danone Activia Rhubarb 4 Pots	121	121	0%
Danone Activia Strawberry 4 Pots	124	124	0%
Danone Oykos Luxury Greek-style Strawberry	161	161	0%
Müller Corner 3x Strawberry 3x Peach & Apricot	n/a	175	n/a
Müller Corner 3x Vanilla Chocolate Balls 3x Banana Chocolate	184	197	7%
Müller Corner Delicious Creamy Yoghurt 3x Milk Chocolate Digestives 3x Strawberry Shortcake	209	209	0%
Müller Corner Delicious Creamy Yoghurt 2x Strawberry, 2x Peach & Apricot, 2x Cherry	169	147	-13%
Müller Corner Red Fruits 3x Red Cherry 3x Blackberry & Raspberry	161	163	1%
Müller Light 6 Pack Yoghurt	99	100	1%
Müller Light Greek Style Luscious Lemon Yoghurt	n/a	72	n/a
Müller Light Red Fruit 6 Pack	91	91	0%
Müller Light Smooth Toffee	89	89	0%
Müller Light Strawberry	89	89	0%
Müller Light Vanilla & Toffee 6 Pack	n/a	91	*
Müller Light Yellow Fruit 6 Pack	n/a	88	*
Nestlé Ski Smooth 2x Strawberry 2x Raspberry	113	107	-5%
Tesco Berry Medley Yoghurts 2x Strawberry 2x Raspberry 2x Cherry	119	119	0%
Weight Watchers Succulent Summer Fruit Yoghurts	n/a	55	*

n/a – Not available

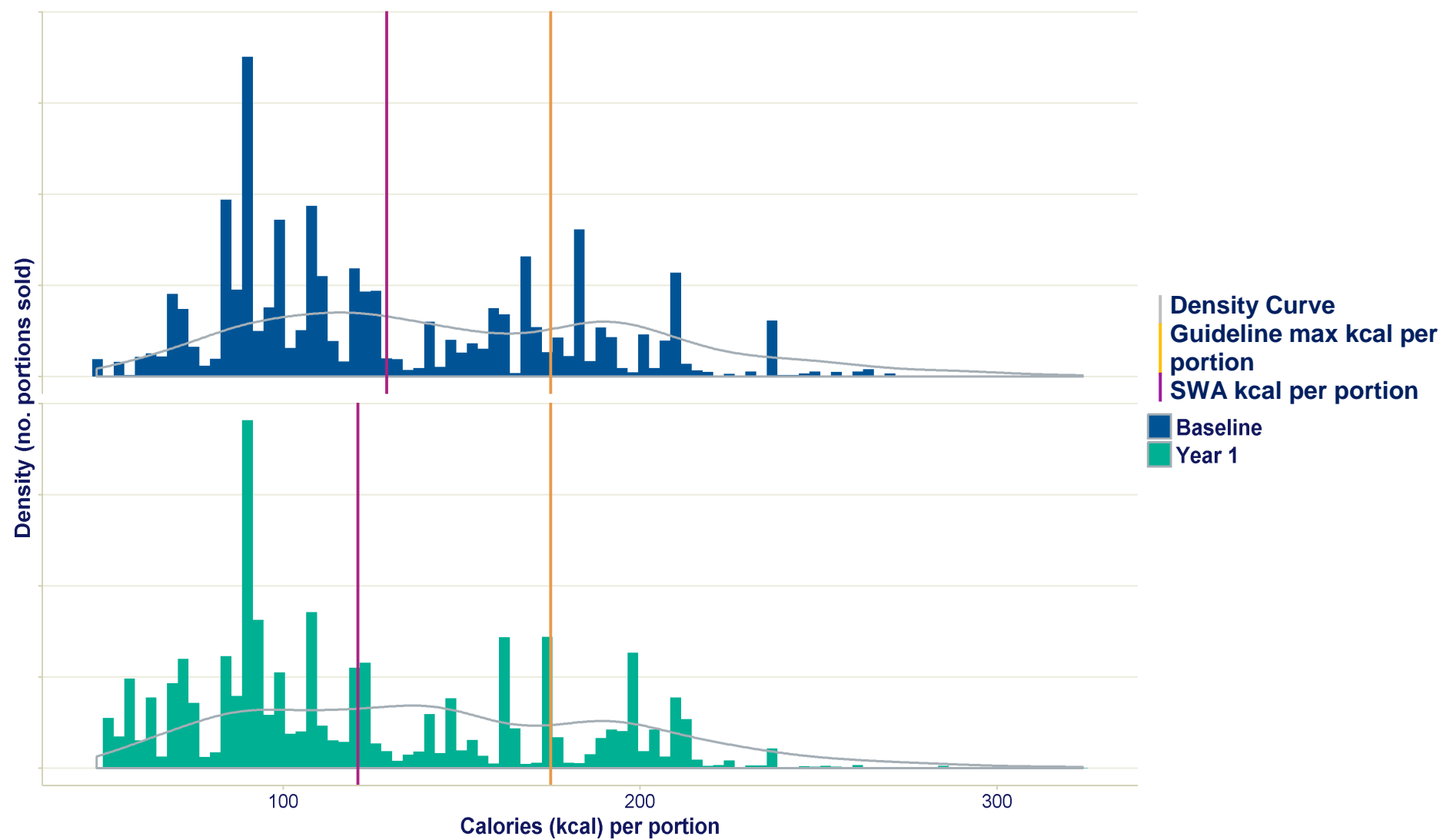
*	Comparable data not available
---	-------------------------------

Figures 1 and 2 show the distribution of total sugar (g/100g) and calories per portion for all yogurts and fromage frais with real nutrition information in the Kantar Worldpanel datasets at baseline and year 1.

Figure 1: Distribution of total sugar (g/100g) for retailer and manufacturer yogurts and fromage fraais



**Figure 2: Distribution of calories per portion (kcal) for single serve retailer and manufacturer yogurts and fromage fraais**





## Revised category definition from year 2

From year 2, the yogurt and fromage frais category will include fermented drinks. Table 12 below shows the revised SWA total sugar g/100g and calories per portion for the baseline year and year 1 when fermented drinks are included. A revised 20% guideline reduction is also shown incorporating the agreed lactose adjustment of 3.8g/100g.

**Table 12: Sales weighted average total sugar levels (g/100g) and average single serve calories per portion (kcal) for yogurts, fromage frais and fermented drinks at baseline (2015) and year 1 (2017) for manufacturers and retailers**

	Baseline (revised category definition)	Year 1 (revised category definition)	20% reduction guideline
Retailer and manufacturer sales weighted average (SWA) total sugar content (g/100g)	12.0g	11.4g	10.4g
SWA calories per portion (for single serve products)	116 kcal	109 kcal	

## Yogurts and fromage frais in the out of home sector

Table 13 shows updated baseline statistics for yogurts and fromage frais purchased out of the home. Purchases (volume sales) are based on the reported volume of product consumed. The SWA total sugar level (g/100g) for yogurts and fromage frais in the out of home sector was 12.8g in 2017. This cannot be directly compared with the figure published for 2015 due to a change in data supplier and improved data coverage (see appendix 2 for more details on the updated baselines). The out of home sales weighted average for total sugar is 9% higher than the equivalent figure for yogurts and fromage frais purchased for in-home consumption.

**Table 13: Yogurts and fromage frais: updated baseline statistics for out of home food, 2017**

	2017 (updated Baseline)
Baseline sales weighted average (SWA) total sugar content (g/100g)	12.8g
Range of total sugar content across products in category (min-max, g/ 100g)	0.3g -59g
SWA calories per portion	110 kcal

Table 14 shows the top 10 sellers of yogurts and fromage frais out of home and the SWA total sugar levels and calories per portion where they are available. The number of products used in the SWA calculation is shown in the table. Nutrition information is only available for a limited number of businesses and no information is available for 2015.

**Table 14: SWA sugar (g/100g) and calories per portion (kcal) for the top 10 sellers\* of yogurt and fromage frais product types out of home in year 1 (2017), where matched nutrition data are available, listed in alphabetical order by business**

Business	2017			
	sugar (g/100g)		calories per portion	
	SWA	number of products	SWA	number of products
Burger King	n/a	n/a	n/a	n/a
Caffè Nero	21.3	10	202	10
Costa Coffee	12.3	1	108	1
Greggs	11.1	2	226	2
KFC	n/a	n/a	n/a	n/a
McDonald's	10.0	1	24	1
Morrisons Ltd Cafe	n/a	n/a	n/a	n/a
Pret A Manger	12.4	5	237	5
Starbucks	12.3	4	265	5
Tesco Food Stores Cafe	n/a	n/a	n/a	n/a

n/a – Nutrition information not available in the OOH dataset, therefore SWA calculation is not possible.

\* Top 10 sellers of yogurts and fromage frais have been ranked based on reported volume of product type consumed from each business.

For the businesses that are in table 14, the case studies presented in table 15 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 15: Case study summary for the top businesses highlighted in Table 14**

Timeframe	Case study summary	Case study reference
Post-Year 1	Post-Year 1 <b>Starbucks</b> reformulated and reduced the portion size of Berry Crunch Yogurt, reducing the sugar and calorie content.	Case study 36

Table 16 shows the top 10 yogurt and fromage frais product types purchased in the out of home sector based on estimated sugar sales, listed alphabetically by business. Nine out of the top 10 products have a sugar value (g/100g) below the average for the category for year 1.

**Table 16: Average sugar levels(g/100g) for the top 10 yogurt and fromage frais product types purchased\* out of home (by total sugar sales\* in year 1), listed in alphabetical order by business**

Business	Top sugar contributing product type (by total sugar sales in Year 1)	Average sugar content of top contributing product type (g/100g)
Asda Stores Ltd Cafe	Yogurt	12.3
Benugo	Yogurt	10.7
Caffè Nero	Yogurt	21.3
Costa Coffee	Yogurt	12.3
Greggs	Yogurt	11.1
Marston's	Yogurt	6.2
McDonald's	Yogurt	10.0
Pret A Manger	Yogurt	12.4
Starbucks	Yogurt	12.3
Waitrose Cafe	Yogurt	10.7

\*Purchased and total sugar sales relate to the reported volume of product consumed


 Average sugar value is at or below the OOH updated baseline (2017) figure (12.8g)

Table 17 shows the top 10 yogurt and fromage frais product types purchased out of home by estimated calorie sales in 2017. Five of the top 10 products have an average calories per portion above the guideline maximum of 175 kcal.

**Table 17: Average calories per portion (kcal) for the top 10 yogurt and fromage frais product types purchased\* out of home (by total calorie sales\* in year 1) , listed in alphabetical order by business**

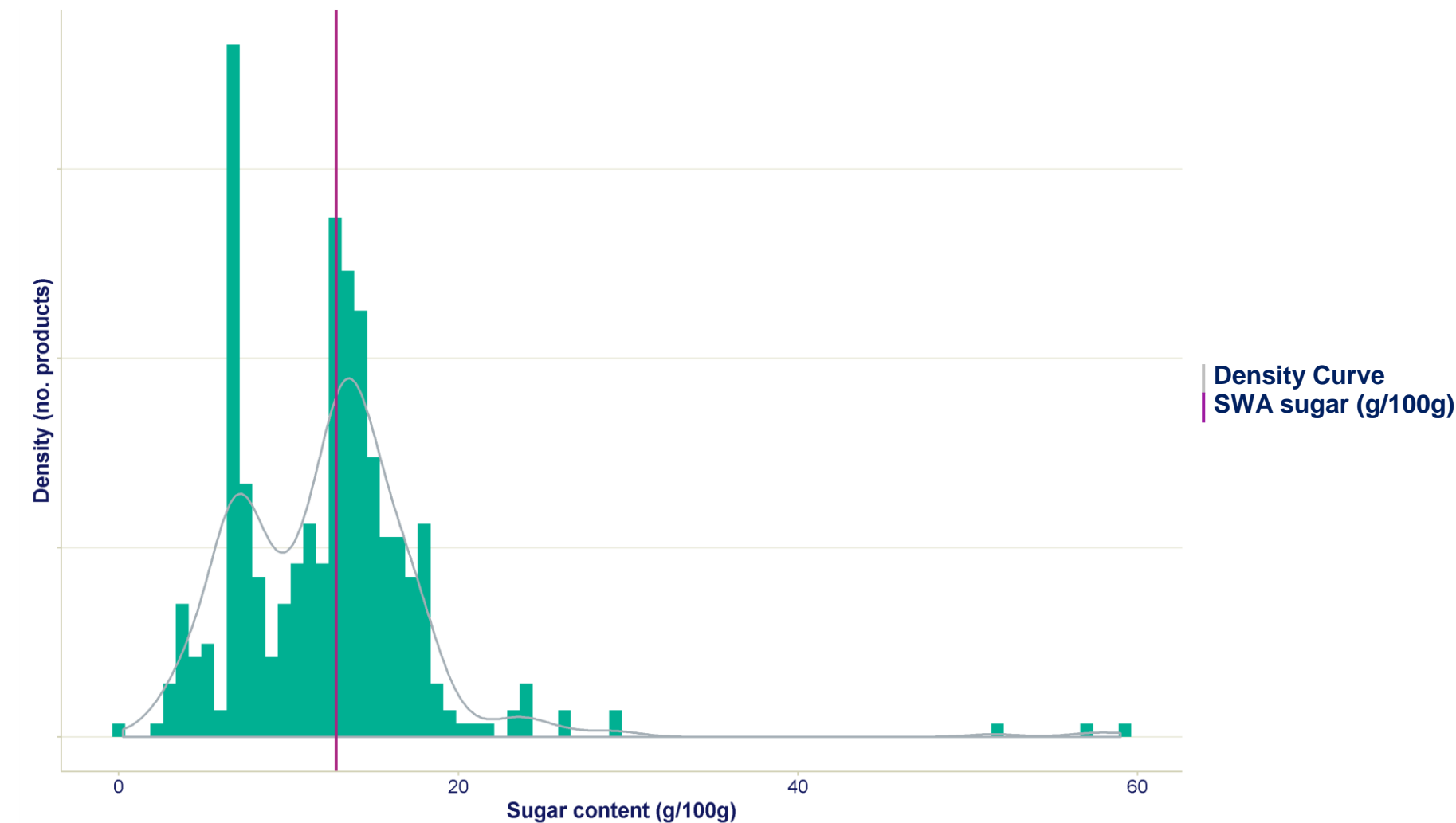
Business	Top calorie contributing product type (by total calorie sales in Year 1)	Average calorie content of top contributing product type (kcal per portion)
Asda Stores Ltd Cafe	Yogurt	98
Beefeater	Yogurt	127
Benugo	Yogurt	271
Caffè Nero	Yogurt	212
Costa Coffee	Yogurt	109
Greggs	Yogurt	226
Harvester	Yogurt	99
McDonald's	Yogurt	25
Pret A Manger	Yogurt	237
Starbucks	Yogurt	265

\*Purchased and total calorie sales relate to the reported volume of product consumed

 Average calorie per portion is above the guideline maximum figure (175kcal)

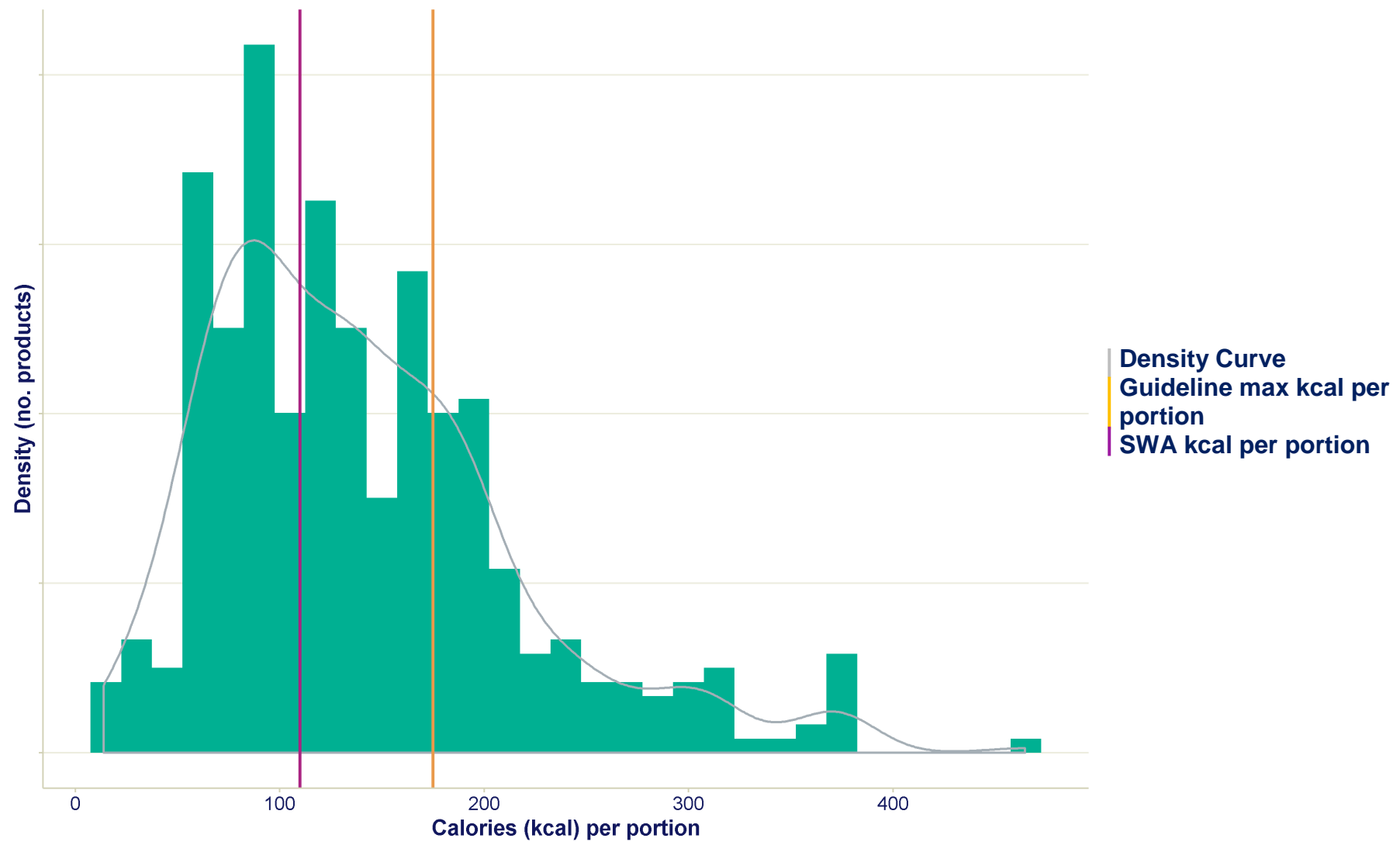
Figures 3 and 4 show the distribution of total sugar (g/100g) and calories per portion for yogurts and fromage frais purchased out of home based on the available nutrition data for year 1 (2017).

**Figure 3: Distribution of total sugar (g/100g) for yogurt and fromage frais product types purchased\* out of home, year 1 (2017)**



\*Yogurt and fromage frais product types purchased relate to the reported volume of product consumed

**Figure 4: Distribution of calories per portion (kcal) for yogurt and fromage frais product types purchased\* out of home, year 1 (2017)**



## Drinks covered by the soft drink industry levy for retailers and manufacturers: analysis of average sugar levels and calories per portion in 2015 and 2017

### Summary

This section presents for retailer own brand and manufacturer branded products, category and business level analysis of sugar content and calories per portion between baseline and year 1 for soft drinks included in the soft drinks industry levy (SDIL). Overall, SWA sugar levels per 100ml fell by 11% between 2015 and 2017.

There is no analysis for the out of home sector, however PHE is working to address this for year 2. This includes some manufacturer branded products sold by the out of home sector.

The PHE sugar reduction programme aims to reduce sugar through encouraging industry to reformulate their products, reduce portion size and increase sales of lower sugar varieties. PHE is working closely with the leading manufacturers and retailers to achieve reductions across the 10 food categories in the programme. Soft drinks are not part of the PHE programme because of the introduction of the SDIL and HM Treasury are responsible for monitoring and evaluating the overall impact of the new levy. PHE is including analysis of changes in SWA sugar and calories per portion as part of the annual reporting on the sugar programme to supplement the monitoring of tax receipts by HMRC and other HM Treasury evaluation activity. As SDIL only came into law in April 2018, this first progress report only includes high level analysis of sales and sugar content by levy group. In future years we expect to report progress at manufacturer and brand level.

Datasets based on consumer panel food purchase surveys have been used for these analyses. The baseline year is 2015. For year 1, data for retailers and manufacturers are for the year ending September 2017, and for the out of home sector are for the year ending August 2017. Some businesses have made reduction and reformulation changes that will not be captured within this timeframe, and they will be reported in subsequent assessments of progress.

## Soft drinks covered by the industry levy

The soft drinks industry levy (SDIL) came into law in April 2018.

The SDIL will apply a levy to producers or importers of soft drinks that contain added sugars. It is set out in legislation contained within the Finance Act 2017<sup>i</sup>. It is enforceable from April 2018 and is the responsibility of HM Treasury. PHE has been asked by HM Treasury to monitor progress of the SDIL in relation to reformulation of products.

A drink is liable for the levy if it meets all the following conditions:

- it has had sugar added during production, including pure cane sugars like sucrose and glucose as well as substances (other than fruit juice, vegetable juice and milk) that contain sugar, such as honey
- it contains at least 5 grams (g) of sugar per 100 millilitres (ml) in its ready to drink or diluted form
- it is either ready to drink, or to be drunk it must be diluted with water, mixed with crushed ice or processed to make crushed ice, mixed with carbon dioxide or a combination of these
- it is packaged ready for sale
- it has a content of 1.2% alcohol by volume or less

Syrups used to make up drinks in the out of home sector that are sold in a glass or cup (eg cola in a cup in a quick service restaurant or takeaway) are subject to the levy. This would be paid by the manufacturer of the syrup rather than by the outlet selling the drink.

A drink is exempt if it meets 1 of the following conditions:

- it contains at least 75% milk
- it is a milk-substitute which contains at least 120 milligrams of calcium per 100ml, for example soya or almond milk
- it is an alcohol replacement drink, for example de-alcoholised beer or wine
- it is infant formula, follow-on formula, baby foods, formulated food intended as a total diet replacement or dietary food used for special medical purposes

The levy will be applied at 2 levels depending on sugar content:

- 18p per litre if the drink has 5g of sugar or more per 100ml
- 24p per litre if the drink has 8g of sugar or more per 100ml

## Levy soft drinks sales in the retail and manufacturing sector

### Number and distribution of soft drink sales for retailer own brand and manufacturer branded drinks

The analysis presented in this section is based on soft drinks data from the Kantar Worldpanel datasets with real nutrition information. In 2017 this covered 79% of all the relevant drinks sold by retailers (covering their own brands) and manufacturer branded products.

Table 1 shows SWA total sugar (g/100ml) and SWA calories per portion for drinks under scope of the sugar levy for retailer own brand and manufacturer branded products. Data are provided separately for products in the high (over 8 grams per 100ml), medium (between 5 and 8 grams of sugar per 100ml) and non levy groups.

For levy soft drinks as a whole, sales weighted average (SWA) sugar levels per 100ml decreased by 11% between 2015 and 2017 and there was a shift in volume sales towards products with sugar levels below 5g per 100ml.

The average calories per portion also decreased by 6% between 2015 and 2017. Average calories per portion for products in the highest levy group decreased by 7% whilst calories per portion increased in the other 2 groups as products were reformulated to move from the highest group to the lower or no levy groups. Some businesses have also reduced the pack size of some products.

**Table 1: Total sales, sales weighted average (SWA) sugar levels (g/100ml) and average single serve calories per portion (kcal) by levy group in 2015 and 2017 (for retailer own brand and manufacturer branded drinks)**

Levy group (sugar content/100ml)	2015			2017		
	Total volume sales (thousand litres)	SWA sugar (g/100ml)	SWA kcal per portion	Total volume sales (thousand litres)	SWA sugar (g/100ml)	SWA kcal per portion
Less than 5g	2,357,796	0.7	13	2,681,252	0.8	24
5 to 8g	278,570	6.6	91	242,767	6.6	109
Over 8g	969,376	10.8	146	868,484	10.7	135
<b>Total</b>	<b>3,605,742</b>	<b>3.9</b>	<b>65</b>	<b>3,792,503</b>	<b>3.4</b>	<b>61</b>



Figure 1 shows the proportion of volume sales of levy soft drinks falling into the 3 levy groups in 2015 and 2017. 71% of volume sales in 2017 were in drinks below the levy threshold of 5 grams per 100ml. This is an increase of 5 percentage points since 2015 and there have been reductions in sales volume in both the highest levy group and the lower rate levy group.

**Figure 1: Distribution of total sales volume of levy soft drinks by levy group (total sugar g per 100ml) in 2015 and 2017 for retailer own brand and manufacturer branded drinks**

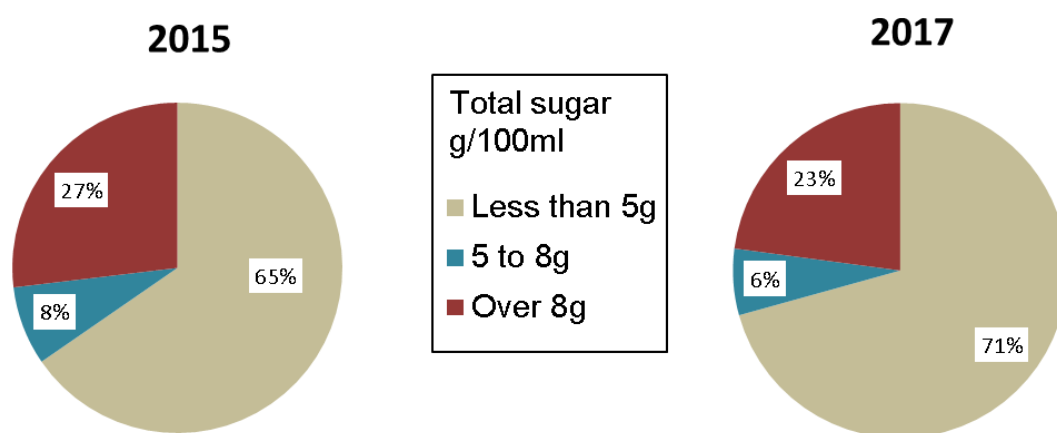
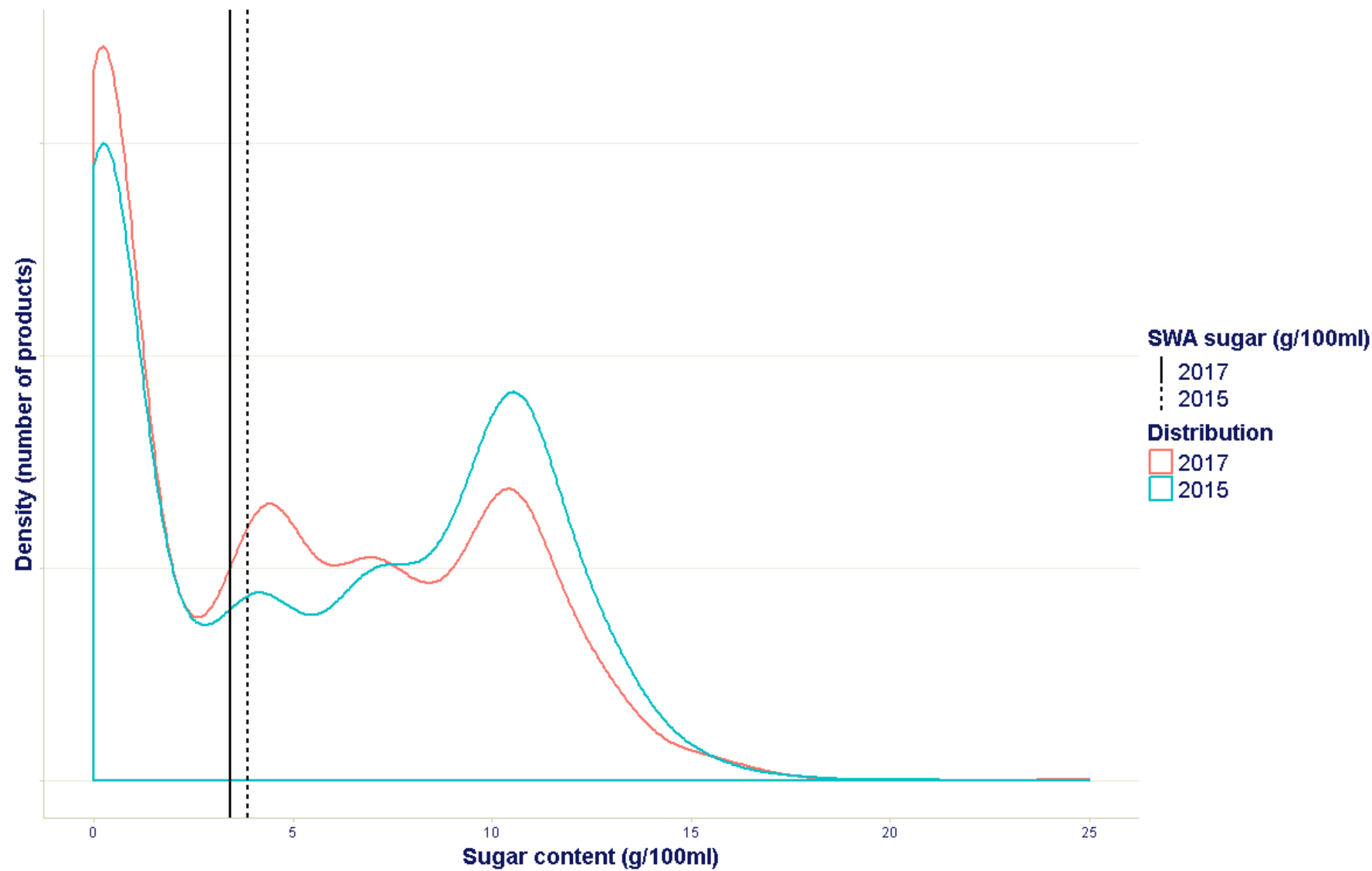


Figure 2 shows the distribution of levy soft drinks on the market in 2015 and 2017 by total sugar content. This clearly illustrates the shift towards more lower sugar products since 2015.

**Figure 2: Distribution of soft drink products on the market in 2015 and 2017 by total sugar (g/100ml) for retailer own brand and manufacturer branded drinks**



When the data are split into manufacturer branded and retailer own brand products a similar picture is seen. Tables 2 and 3 show that there is a shift in volume sales for both groups towards products with sugar content below 5%. Figure 3 also highlights the higher volume sales in manufacturer branded products compared to retailer own brand products.

Where there have been increases in either average sugar or average calorie levels for the no levy or lower levy groups this is due to products being reformulated to move out of the higher levy group. These reformulated products will generally have higher sugar and calorie levels than the average for products in the no levy or lower levy groups and hence the overall average for the group increases.

SWA sugar levels fell by 11% for manufacturer branded drinks and by 17% for retailer own brand drinks. There was also a 5% reduction in average calories per portion for manufacturer branded soft drinks and a 14% reduction in average calories per portion for retailer own brand drinks which are already, on average, lower in calories than branded drinks.

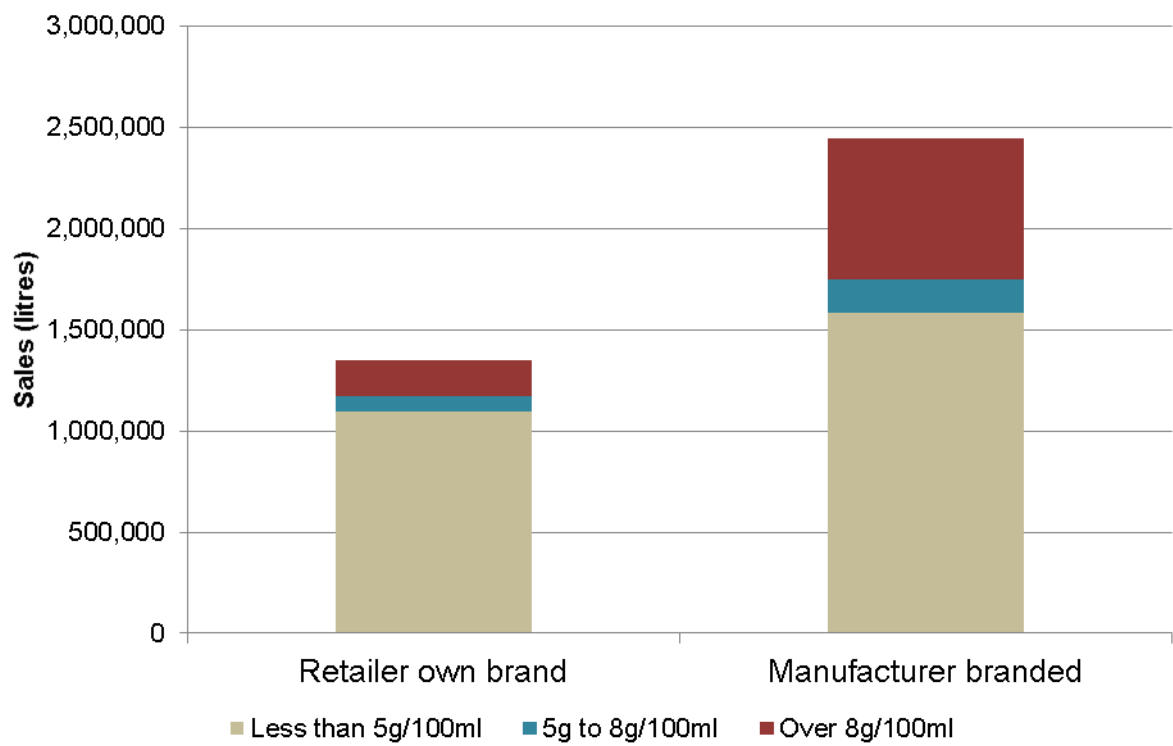
**Table 2: Total sales, sales weighted average (SWA) sugar levels (g/100ml) and average single serve calories per portion (kcal) by levy group in 2015 and 2017 – manufacturer branded**

Levy group (sugar content/100ml)	2015			2017		
	Total volume sales (thousand litres)	SWA sugar (g/100ml)	SWA kcal per portion	Total volume sales (thousand litres)	SWA sugar (g/100ml)	SWA kcal per portion
Less than 5g	1,321,344	0.6	12	1,585,817	0.9	25
5 to 8g	189,013	6.5	90	164,713	6.6	109
Over 8g	741,714	10.9	149	694,884	10.7	137
<b>Total</b>	<b>2,252,072</b>	<b>4.6</b>	<b>69</b>	<b>2,445,414</b>	<b>4.1</b>	<b>66</b>

**Table 3: Total sales, sales weighted average (SWA) sugar levels (g/100ml) and average single serve calories per portion (kcal) by levy group in 2015 and 2017 for retailer own brand drinks**

Levy group (sugar content/100ml)	2015			2017		
	Total volume sales (thousand litres)	SWA sugar (g/100ml)	SWA kcal per portion	Total volume sales (thousand litres)	SWA sugar (g/100ml)	SWA kcal per portion
Less than 5g	1,036,452	0.6	18	1,095,435	0.6	16
5 to 8g	89,556	6.7	113	78,054	6.7	103
Over 8g	227,662	10.6	108	173,600	10.5	113
<b>Total</b>	<b>1,353,671</b>	<b>2.7</b>	<b>37</b>	<b>1,347,089</b>	<b>2.3</b>	<b>32</b>

**Figure 3: Volume sales of soft drinks by sugar content for retailer own brand and manufacturer branded drinks 2017**



Analysis by brand

Table 4 shows the top 20 manufacturer branded soft drinks brands by total sugar sales in 2017 listed alphabetically.

**Table 4: Sales weighted average (SWA) sugar levels (g/100ml) in 2015 and 2017 – top 20 manufacturer brands by volume of sugar sales, listed in alphabetical order**

Manufacturer branded	SWA total sugar (g/100ml)		
	2015	2017	% change
7 Up Regular	10.9	10.1	-7%
Barr Iron Bru Soft Drink	10.3	10.3	0%
Britvic J20 Fruit Juice	6.8	4.9	-28%
Capri Sun Fruit Drink	10.5	10.6	1%
Cherry Coke	11.2	11.2	0%
Coca Cola	10.6	10.6	0%
Dr.Pepper Regular	7.2	7.2	0%
Fanta Fruit Drink	7.4	7.1	-4%
Fanta Fruit Twist	6.4	6.4	0%
Lucozade Energy	11.6	4.9	-58%
Ocean Spray Juice Drink	11.4	8.9	-22%
Old Jamaica Regular	14.9	14.9	0%
Pepsi Cola	11.0	11.0	0%
Ribena	10.0	10.0	0%
Rubicon Exotic	13.0	12.9	-1%
Schweppes Lemonade	4.2	4.2	0%
Shloer Regular	10.3	9.7	-6%
Sprite Regular	6.6	6.6	0%
Vimto Regular	8.9	8.9	-1%
Volvic Touch Of Fruit	3.4	2.4	-30%

For the brands that are in table 4, the case studies presented in table 5 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 5: Case study summary for the top highlighted in Table 4**

Timeframe	Case study summary	Case study reference
Pre-Baseline	Pre-Baseline <b>Britvic PLC</b> removed added sugar variants of Fruit Shoot and Robinson's products.	Case study 4

Table 6 shows the top 20 retailer own brand soft drinks by sugar sales in 2017. Data for Lidl and Aldi are not available for 2015 on a comparable basis and hence change since 2015 can not be shown.

**Table 6: Sales weighted average (SWA) sugar levels (g/100ml) in 2015 and 2017 – top 20 retailer own brands by volume of sugar sales, listed in alphabetical order**

Retailer own brand	SWA total sugar (g/100ml)		
	2015	2017	% change
Aldi Juice Drink	n/a	11.7	n/a
Asda Chosen By You Cola	7.4	7.4	0%
Asda Chosen By You Juice Drink	11.2	6.9	-39%
Asda Juice Drink	n/a	6.1	n/a
Freeway Cola (Lidl)	n/a	10.9	n/a
Freeway Regular (Lidl)	n/a	10.0	n/a
Lidl Juice Drink	n/a	9.1	n/a
Lidl Solevita Fruit Juice	8.2	8.0	-2%
Morrisons High Juice Squash	8.5	8.5	0%
Morrisons Savers juice	9.4	9.3	-1%
Sainsbury's Juice Drink	9.8	9.6	-2%
Sainsbury's Lemonade	5.6	5.7	3%
Sainsbury's Regular	13.7	13.8	1%
Tesco Cola	10.6	9.7	-9%
Tesco High Juice Squash	6.6	6.7	0%
Tesco Juice Drinks	11.1	8.6	-22%
Tesco Lemonade	4.1	4.1	0%
Vive Cola (Aldi)	n/a	10.6	n/a
Vive Lemonade (Aldi)	n/a	4.5	n/a
Waitrose Fruit Squash	8.4	8.6	2%

n/a – Not available

For the businesses that are in table 6, the case studies presented in table 7 demonstrate the reformulation progress those businesses have reported they have made. PHE has not made an assessment of the information businesses have provided for the case studies. Further case study information for all businesses that provided data can be found in appendix 4.

**Table 7: Case study summary for the top highlighted in Table 6**

Timeframe	Case study summary	Case study reference
Pre-Baseline	Pre-Baseline <b>Asda Stores Ltd</b> reformulated and reduced the sugar content in sixty-eight soft drinks.	Case study 1
Pre-Baseline, Between Baseline and Year 1 and Post-Year 1	From Pre-Baseline to Post-Year 1 <b>Tesco Food Stores Ltd</b> reformulated and reduced the sugar content in forty-nine soft drinks.	Case study 39

# References

---

<sup>i</sup> HM Government. Finance Act 2017

[Available from: <http://www.legislation.gov.uk/ukpga/2017/10/contents/enacted>]