

Report on the comparative nutritional profile of 713 food and beverage products marketed by 21 large companies operating in Tanzania.

Prepared by The George Institute for the Access to Nutrition Initiative

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EXECUTIVE SUMMARY

The overall goal of this work is to provide stakeholders, including companies, government, nutrition experts and others, with a fuller understanding of the nutritional quality of packaged food and non-alcoholic beverage products sold by the largest manufacturers operating in Tanzania. Nutrient information for 483 packaged food and beverage products sold by 21 companies in 2025 were included in analysis. Nutrient information was obtained either from Innova Market Insight's Tanzania database or directly from the manufacturer.

Three nutrient profiling methods were selected to evaluate each company's product portfolio. The Australasian Health Star Rating (HSR) system was used to assess the healthiness of company product portfolios. In addition, the HSR+ (developed in collaboration between The George Institute and ATNi) was used to assess the healthiness of company product portfolios. The HSR+ model uses the HSR model as a basis and enables products containing sufficient micronutrient levels to achieve a higher score than they would under the HSR. Finally, the World Health Organization's Africa Regional Office (WHO AFRO) nutrient profile model was used to assess the proportion of products in each company's portfolio eligible to be marketed to children. The proportion of products that could be considered 'healthy' using the HSR was determined using a cut-off of 3.5 out of 5.0 stars and was examined both by company and by food/beverage category. Each company was then ranked by the mean HSR of their product portfolio (under both the original HSR and the HSR+ models), the proportion of their portfolio that was considered 'healthy', and the proportion of products meeting WHO AFRO eligibility criteria. Results were weighted using sales data from Euromonitor International.

The mean healthiness of companies' products under the original HSR was found to be 1.9 stars out of 5.0 (2.2 when data were weighted by sales), with substantial variation observed between companies. A low proportion (25%) of products met the HSR 'healthy' cut-off of 3.5 out of 5.0 stars increasing to 37% when results were weighted by category and company sales. Only 9% of products overall were eligible to be marketed to children according to the WHO AFRO criteria, increasing to 15% after sales-weighting was applied. Sales-weighting changed the rankings of the companies in relation to healthiness and generally increased the disparities observed between companies.

There were significant strengths and some important weaknesses relating to the research process. For example, 7 companies were not willing to review and provide corrections and/or additions to the list of their product portfolio and nutrition composition of their products that were prepared by TGI and shared by ATNi with all 21 companies. It is therefore difficult to determine the level of market coverage achieved by the inclusion of these 483 products. On balance, it is reasonable to conclude that the average healthiness of the products provided and sold by the largest food companies operating in Tanzania is sub-optimal. Further, there are important differences between companies that could be addressed by investments that target improvements in the product mix as well as the reformulation of less healthy products. The low number of products eligible for marketing to children is indicative of the unhealthy nature of most of the products offered by Tanzania's largest food and beverage manufacturers.

In addition to the remedial actions that the companies could take, there is a clear opportunity for the Government of Tanzania to introduce effective and enforceable legislation that prevents the marketing of unhealthy products to children.

BACKGROUND

The George Institute for Global Health's mission is to improve the health of millions of people worldwide. More specifically, the Food Policy Division works to reduce rates of death and disease caused by diets high in salt, saturated fat, sugar and excess energy by undertaking research and advocating for a healthier food environment. The Division's main areas of activity are quantifying the healthiness of the food supply, encouraging food reformulation, and developing innovative approaches to encourage consumers to make healthier food choices.

In 2025, The George Institute was commissioned by ATNi (the Access to Nutrition Initiative) to produce the first *Product Profile* for Tanzania to input into the *Tanzania Market Assessment 2025*. The Index will score and rank the contribution of Tanzania's largest food and beverage manufacturers to tackling the country's double burden of malnutrition. It will consist of an analysis of those companies' policies, practices and disclosures (the *Corporate Profile*), which includes an analysis of the nutritional quality of each company's food and beverage products in the Tanzanian market (the *Product Profile*).

This report sets out the objectives, methods, results and interpretation of the Tanzania *Product Profile* analysis done in 2025 for the *Tanzania Market Assessment 2025*.

OVERALL GOAL

The overall goal of this work is to provide stakeholders, including companies, government, nutrition experts and others with a fuller understanding of the healthiness of packaged food and non-alcoholic beverage products (hereafter "foods and beverages") sold by 21 of the largest manufacturers in Tanzania.

METHODOLOGY

Selection of companies

ATNi requested The George Institute to originally include the products of 27 manufacturers with the highest estimated packaged food and beverage retail sales in Tanzania in 2022.³ The included companies, in alphabetical order, with the name used throughout this report in brackets are:

- AKTZ Group (AKTZ)
- Asas Dairies Limited (Asas)
- Bakhresa Food Products Limited (Bakhresa)
- Britannia Industries Ltd (Britannia)
- Brookside Dairy Ltd (Brookside)
- Darsh Industries Ltd (Darsh)
- Deepa Industries Ltd (Deepa)
- Flora Food Group (Flora FG)
- Galaxy Food & Beverage Ltd (Kilimanjaro Fresh) (Galaxy)
- IFFCO (IFFCO)
- Indofood (Indofood)
- Iringa Foods & Beverages Ltd (IFB)
- Kevian Kenya Ltd (Kevian)
- Kraft Heinz (Kraft Heinz)
- Mars Inc (Mars)
- MeTL Group Limited (MeTL)
- Milkcom Dairies Ltd (Milkcom)
- Mondelēz International Inc (Mondelēz)
- Motisun group (Sayona Drinks Ltd) (Motisun)
- Nestlé S.A. (Nestlé)
- PepsiCo Inc (PepsiCo)
- Post Holdings Inc (Weetabix)
- Smart Industry Ltd (Smart)
- Tanga Fresh (Tanga)
- The Coca-Cola Company (Coca-Cola)
- Trufoods Ltd (Trufoods)
- Wilmar Tanzania Ltd (Wilmar)

Choice of nutrient profile model

Nutrient profiling is the science of classifying or ranking foods according to their nutritional composition for the purpose of preventing disease and promoting health.⁴ Nutrient profile models have been developed by academics, government departments, health-related charities and the food industry for a variety of applications including: to underpin food labelling; to regulate advertising of products to children; and to regulate health and nutrition claims. Although nutrient profiling is a tool to quantify aspects of individual foods, not diets, nutrient profile models are commonly used to underpin policies designed to improve the overall nutritional quality of diets. The following four nutrient profile models were used to examine company portfolios in the Tanzania 2025 Product Profile:

The Health Star Rating is a front-of-pack interpretive nutrition labelling system designed to assist consumers in making healthier choices. The underlying nutrient profile model assesses risk nutrients (overall energy, sodium, total sugar, saturated fat) and positive food components (fruit and vegetable content, protein and fibre) to score products on the basis of nutritional composition per 100g or 100mL across one of six categories. These scores are then converted to a ‘Health Star Rating’ from 0.5 to 5 stars. Development was led by the Australian government in collaboration with industry, public health and consumer groups, and builds upon the Nutrient Profiling Scoring Criteria (NPSC) previously developed by the Australian and New Zealand Governments to regulate health claims.⁵ The NPSC itself was developed from the United Kingdom’s Ofcom model. The HSR has been implemented in Australia since June 2014 on a voluntary basis. The system has also been adopted in New Zealand. Further detailed information is available online.⁶

The mHSR+ model is a nutrient profile model designed by The George Institute in collaboration with ATNi. Discrimination of companies’ product portfolios based on micronutrient content is currently not possible through the HSR. The HSR algorithm assigns points per product for its energy density, saturated fat, total

³ Data extracted from Euromonitor International International’s 2022 industry publications of; Packaged Food, Hot Drinks and Soft Drinks.

⁴ World Health Organization, Nutrient Profiling <http://www.who.int/nutrition/topics/profiling/en/>

⁵ See Australia New Zealand Food Standards Code, Standard 1.2.7

⁶ Department of Health, Australian Health Star Rating website: <http://healthstarrating.gov.au>

sugar and sodium content, with modifying points assigned for protein, fibre and the presence of fruits, vegetables, nuts and legumes. The absence of micronutrients in its assessment means that the HSR can often not discriminate between products within lower-middle income countries seeking to prevent undernutrition caused by micronutrient deficiencies. The pilot phase of the HSR+ algorithm found that the incorporation of six micronutrients (iron, vitamin A, vitamin B12, vitamin D, folic acid and iodine) was feasible. In this report, two versions of the mHSR+ models were used to examine whether the inclusion of micronutrients in the HSR had any effect on company rankings.

The WHO AFRO model is a nutrient profile model designed primarily for use and adaptation by Member States of the WHO African Region when developing policies to restrict food marketing to children. The model was developed in 2016. The model operates by first requiring foods to be allocated to one of 25 categories. Products are then checked against category-specific compositional thresholds for nutrients and other food components. A product must not exceed on a per 100g/mL basis any of the relevant thresholds for that product category if marketing is to be permitted. Results under this model are simply expressed on a binary basis i.e. ‘marketing permitted’ or ‘marketing not permitted’. In the absence of relevant Tanzanian regulation in this area, the model was selected as a reasonable basis by which to determine products’ suitability to be marketed to children.

To work optimally, nutrient profile models rely on the availability of comprehensive nutrition information. In the Tanzanian context, national nutrition labelling legislation generally only requires the display of energy content (in kilocalories), protein, carbohydrates, total sugars and total fats. Amounts of other nutrients are only required where a nutrient content claim is made. **Table 1** below displays the alignment between nutrients required for the operation of the HSR, and those required to be declared on Tanzanian nutrition labels. Calculating a nutrient profile score for a product requires values for all data points used by the nutrient profile model and imputation of missing data was therefore required for Tanzania.

Table 1 Alignment of nutrients required for the four included nutrient profile models with those required by Tanzanian labelling legislation

	Tanzanian Regulations	HSR	WHO AFRO	HSR+
Total number of nutrients required	8	9	7	14*
Protein	✓	✓		✓
Fibre		✓		✓
Fruit and vegetable content		✓		✓
Energy	✓	✓	✓	✓
Total fat	✓		✓	
Saturated fat	✓	✓	✓	✓
Trans fat			✓	
Carbohydrate	✓			
Total sugars	✓	✓	✓	✓
Added sugars		✓	✓	
Other sweeteners	✓	✓		✓
Sodium	✓	✓	✓	✓
Iodine				✓
Iron				✓
Vitamin D				✓
Vitamin B12				✓
Folate				✓
Vitamin A				✓

= nutrients required by both specified profiling model and Tanzanian legislation

Eligibility of food and beverage products

Foods and beverages eligible for inclusion were defined as '*all packaged foods and non-alcoholic beverages manufactured by the included companies available for purchase in Tanzania.*' A food or beverage was considered a unique item based on the brand name and description irrespective of serving size and packaging (i.e. a specific brand of cola sold in 330mL cans was considered to be the same food item as the same specific brand of cola sold in 600mL bottles). However, if two products with the same name and description existed yet had different nutrient values, both products were retained in the analysis.

The following products were excluded from analyses:

1. Unprocessed meat, poultry and fish (on the basis that such foods are not generally required to carry a nutrient declaration)
2. Plain tea and coffee (on the basis that these make an inherently low nutritional contribution and are thereby not required to display a nutrient declaration)
3. Condiments such as herbs, salt, pepper, vinegars and spices (on the basis that these make an inherently low nutritional contribution and are thereby not required to display a nutrient declaration)
4. Infant formulas, and baby food and baby beverages (excluded because these products are not consumed by the general population and the selected models are not appropriate for their evaluation).
5. Companies with <=2 products were excluded from analysis. For this reason, AKTZ, Indofood, Britannia, IFB, Smart, and Wilmar were excluded.

Product identification and data review

Two data sources were used to create a product list for each manufacturer comprising nutritional information:

- Products from Innova Market Insight's Tanzania database
- Products from the *2024 Global Product Profile*

In December 2024, the 27 companies were asked whether they wished to provide data for analysis using a provided template, or whether they preferred to be provided with their data for review (sourced via Innova Market Insights) and offered an opportunity to make corrections or additions to information about their product range. 14 of the 27 companies either reviewed or provided data for the *2025 Tanzania Product Profile* analysis.

Imputation of essential missing data

Health Star Rating

For the purposes of generating a Health Star Rating, proxy values were used for missing values of saturated fat, sugar, fibre and sodium, but *only* if the product label included energy and at least two of the four required nutrients for the analysis (saturated fat, sugar, sodium, protein) otherwise the product was excluded. These decisions were a pragmatic compromise between enabling analysis of the majority of identified products versus basing analysis on mostly proxy data. The imputation of missing data was done as follows:

- Proxy values for saturated fat, total sugar, sodium, fibre and 'fruit vegetable nut and legume' (FVNL) content were developed by using available data for 1,037 global food categories and more than 400,000 products in the full Global FoodSwitch database (regardless of manufacturer). The average value of the products with available data was estimated for each category and assigned to those products in that category with missing data.

Health Star Rating + micronutrients (mHSR+)

For the purposes of generating an mHSR+ result, proxy values were used for missing values of iron, vitamin A, vitamin B12, vitamin D, folic acid and iodine, but *only* if the product label included energy, total fat, protein and carbohydrate, otherwise the product was assigned values of zero for any missing micronutrients. The imputation of missing micronutrient data was done as follows:

1. Used an existing method to identify individual ingredients from each product's ingredient list and estimate their proportion within a product.
2. Ingredient text was disaggregated using an automated process and all ingredient terms were aggregated to a single list that was refined to include only unique ingredients.
3. A linear programming method was used to estimate the weight proportion of individual ingredients when not reported on the product label. The product nutrition information and the list of ingredients reported on the packaging, along with the nutrient profiles of the ingredients, were used to define the algorithm.
4. Each unique ingredient was assigned values per 100g for iron, vitamin A, vitamin B12, vitamin D, folic acid and iodine. The values were derived from four food composition tables (AUSNUT 2011-2013 food nutrient database, Kenya food composition tables 2018, Tanzania food composition tables 2023 and AUSNUT 2007 nutrient database) by matching unique ingredients to a similar ingredient in the tables.
5. An estimate for missing micronutrients for each product (nutrient/100g) was calculated from the ingredient data by summing the micronutrient content for each ingredient, weighted by the ingredient proportion within a product.

WHO AFRO NPM

For the purposes of generating an outcome under the WHO AFRO NPM, proxy values were used for total fat, saturated fat, sugar and sodium. Eligibility was determined category-by-category as per the WHO model which uses different nutrients for each WHO-specified category. For some products, the available nutritional information was insufficient to apply the WHO AFRO eligibility criteria. It was therefore necessary to impute missing data which was done as follows:

- Proxy values for saturated fat, total sugar and sodium contents were developed by using available data for 1,037 global food categories and more than 400,000 products in the full Global FoodSwitch database (regardless of manufacturer). The average value of the products with available data was estimated for each category and assigned to those products in that category with missing data.

Table 2 Sources of information relied upon in applying each nutrient profile model

	HSR	WHO AFRO
Total products analysed	483	496
All data direct from label	314	313
Proxy data required for one nutrient	101	183*
Proxy data required for two nutrients	51	-
Proxy data required for 3 or more nutrients	17	-

* Different criteria are required for each WHO AFRO category.

Table 2 outlines the sources of nutrient information used in generating nutrient profile scores. For most products, the available nutritional information was insufficient to apply the selected nutrient profile models.

Product categorisation

Products were categorised in four ways:

- To one of 1,037 categories within the global FoodSwitch database.
- As either a food or beverage product.
- To one of 25 categories under the WHO AFRO NPM.
- To one of 21 categories within the Euromonitor International food and beverage categorisation system. This categorisation was made to enable the nutrition analysis to be combined with sales data.

Groupings of Euromonitor International categories and sub-categories – hereafter called ‘EMI subsets’ - were made to generate subsets of products of sufficient size to allow nutritional analysis of comparable food products. Of note, results for milk drinks are presented as ‘foods’ not ‘drinks’ according to Euromonitor International’s method of classification but were considered beverages when calculating their nutrient profile results.

Table 3 EMI subsets

Foods	Beverages
Baked Goods	Asian Specialty Drinks
Breakfast Cereals	Bottled Water
Butter and Spreads	Carbonates
Confectionery	Concentrates
Dairy	Energy Drinks
Flour	Instant Coffee Mixes
Ice Cream	Juice
Processed Fruit and Vegetables	Other Hot Drinks
Rice, Pasta and Noodles	
Sauces, Dips and Condiments	
Savoury Snacks	
Sweet Biscuits, Snack Bars and Fruit Snacks	
Sweet Spreads	

Definitions for subsets can be found on ATNi’s website

Sales data

Sales data were obtained for each company. This was used to generate sales-weighted outcomes for analyses. As ATNi held the licence for the Euromonitor International data, ATNi did the analyses and provided The George Institute with results. ATNi accepts full responsibility for these components of the report. The sales data were those for the 2022 period.

Analysis strategy

There were four research questions addressed:

1. *What is the average health Star Rating of each company's product portfolio and how do companies compare?* Three metrics were used to examine product portfolios:
 - a. *Health Star Rating (HSR)*
 - b. *Health Star Rating + (mHSR+)*
 - c. *Health Star Rating + (no protein) (mHSR+NP)*
2. *What proportion of each company's products are 'healthy' and how do companies compare?* The metric used was the proportion of the product portfolio that had a Health Star Rating of 3.5 stars or above. Three metrics were used to examine product portfolios:
 - a. *Health Star Rating (% healthy)*
 - b. *Health Star Rating + (% healthy)*
 - c. *Health Star Rating + (no protein) (% healthy)*
3. *What proportion of each company's products are eligible to be marketed to children and how do companies compare?* The metric used was the proportion of the product portfolio meeting WHO AFRO eligibility criteria for marketing to children.

The data were analysed using STATA statistical software version 18.

RESULTS – (1) Health Star Rating

Products included

Initially, n=713 products were identified manufactured by the 21 included companies. Of these, n=192 were excluded due to either erroneous data, being duplicate products or not having any nutritional information available. N=38 were excluded from the HSR algorithm specifically as they did not have sufficient baseline data to conduct the HSR algorithm. This left n=483 unique products for analysis from 21 companies, of which n=352 were food products and n=131 were beverages.

Table 4 Number of food products by company in EMI subsets

	Baked Goods	Breakfast Cereals	Butter and Spreads	Confectionery	Dairy	Flour	Ice Cream	Processed Fruit & Veg	Rice, Pasta & Noodles	Sauces, Dips & Condiments	Savoury Snacks	Sweet Biscuits	Sweet Spreads	Total
Asas	0	0	0	0	13	0	0	0	0	0	0	0	0	13
Bakhresa	1	0	0	0	2	8	10	1	0	1	0	12	0	35
Brookside	0	0	3	0	14	0	0	0	0	0	0	0	0	17
Darsh	0	0	0	0	0	1	0	0	0	5	0	0	4	10
Deepa	0	0	0	0	0	0	0	0	0	2	27	0	0	29
Flora FG	0	0	2	0	0	0	0	0	0	0	0	0	2	4
Galaxy	0	0	1	0	14	0	0	0	0	0	0	0	0	15
IFFCO	1	0	0	5	0	0	5	0	1	1	0	30	0	43
Kraft Heinz	0	0	0	0	0	0	0	1	0	7	0	0	0	8
Mars	0	0	0	20	0	0	0	0	0	0	0	0	0	20
MeTL	0	0	1	0	0	4	0	0	0	1	0	0	0	6
Milkcom	0	0	0	0	18	0	1	0	0	0	0	0	0	19
Mondelēz	0	0	0	28	0	0	0	0	0	0	0	4	0	32
Motisun	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Nestlé	0	0	0	24	4	0	0	0	0	1	0	0	0	29
PepsiCo	0	0	0	0	0	0	0	0	0	0	7	0	0	7
Tanga	0	0	3	0	7	0	0	0	0	0	0	0	0	10
Trufoods	0	0	0	0	0	1	0	0	0	5	0	18	8	32
Weetabix	0	22	0	0	0	0	0	0	0	0	0	0	0	22
Total	2	22	10	77	72	14	16	2	1	23	35	64	14	352

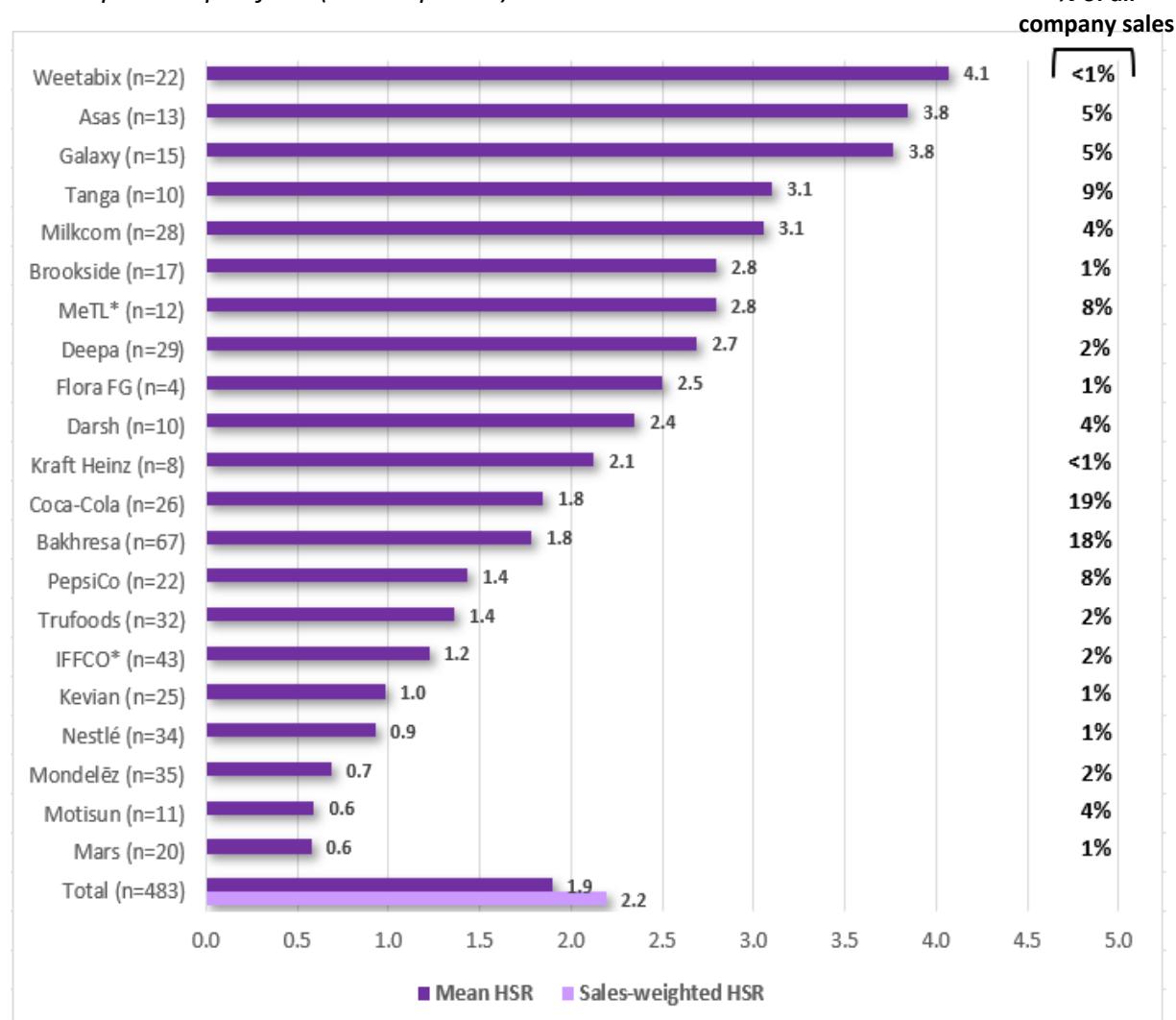
Table 5 Number of beverage products by company in EMI subsets

EMI subset	Asian Specialty Drinks	Bottled Water	Carbonates	Concentrates	Energy Drinks	Instant Coffee Mixes	Juice	Other Hot Drinks	Total
Bakhresa	0	1	11	0	1	0	19	0	32
Coca-Cola	0	5	19	0	0	0	2	0	26
Kevian	1	0	0	0	0	0	24	0	25
MeTL	0	1	5	0	0	0	0	0	6
Milkcom	0	1	8	0	0	0	0	0	9
Mondelēz	0	0	0	0	0	0	0	3	3
Motisun	0	0	7	0	0	0	3	0	10
Nestlé	0	0	0	1	0	1	0	3	5
PepsiCo	0	1	9	0	0	0	5	0	15
Total	1	9	59	1	1	1	53	6	131

The number of products examined in this report ranged from n=4 products for Flora FG to n=67 products for Bakhresa. The biggest EMI subsets were *Dairy* (n=72), *Confectionery* (n=77) and *Sweet Biscuits, Snack Bars and Fruit Snacks* (n=64). The smallest subsets were *Instant Tea and Coffee Mixes*, *Energy Drinks*, *Concentrates*, *Asian Specialty Drinks* and *Rice, Pasta and Noodles* (n=1)

ANALYSIS 1a: Corporate rankings based upon mean nutrient profile of products

Figure 1 Mean Health Star Rating and sales-weighted mean Health Star Rating by company – overall product portfolio (21 companies)



* MeTL and IFFCO sales mainly derive from oil products, however nutrition information was not available for these products in analysis.

Overall, mean HSR was 1.9 stars out of 5.0, increasing to 2.2 stars following sales-weighting (indicating healthier products accounted for a slightly higher proportion of sales). Weetabix had the highest mean HSR of 4.1 out of 5.0, followed by Asas and Galaxy with 3.8. Mars and Motisun had the lowest mean HSR of 0.6. Three of the 21 companies had a mean HSR of ≥3.5. Mean HSR results by company for foods and beverages separately can be found in [Annex Figure 1](#) and [Annex Figure 2](#).

Figure 2 Mean Health Star Rating by category – foods

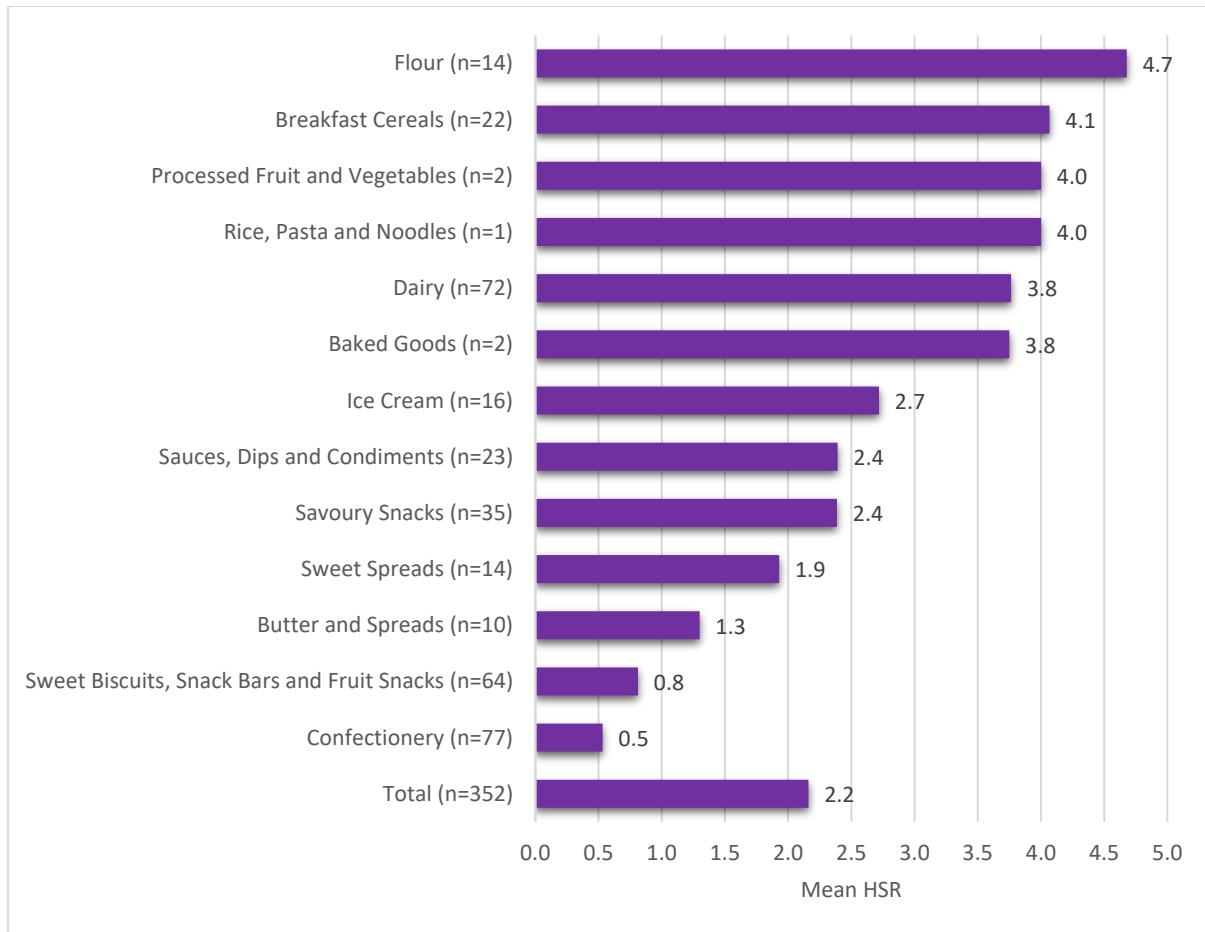
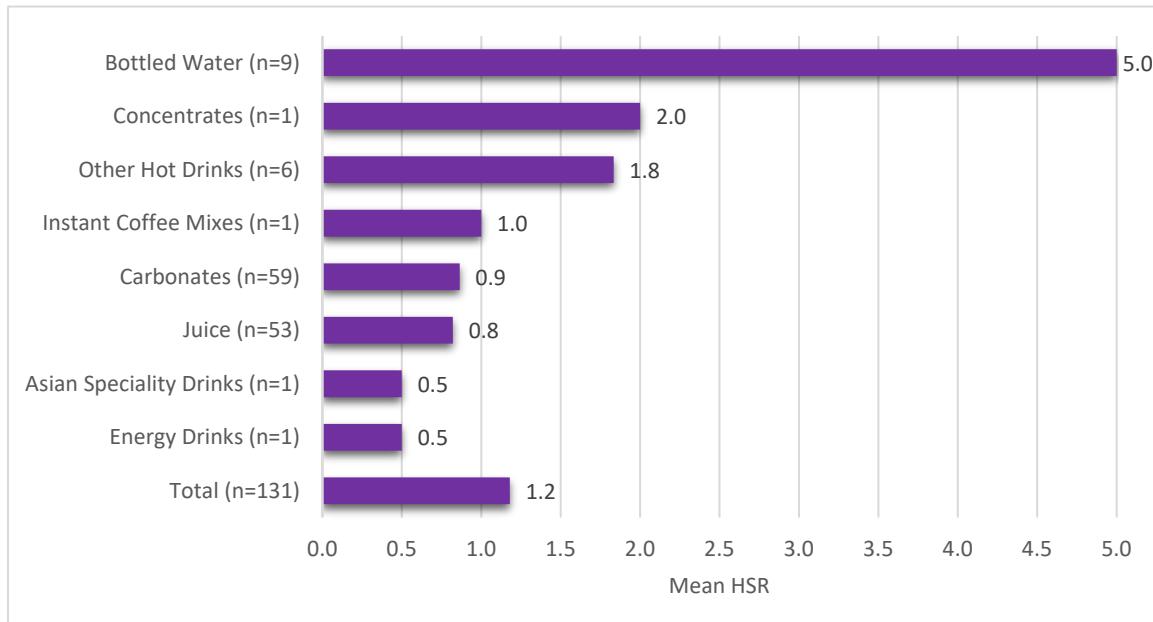


Figure 3 Mean Health Star Rating by category - beverages



The mean HSR for foods was higher at 2.2 than for beverages at 1.2. *Bottled Water* had the highest mean HSR (5.0). *Confectionery, Asian Specialty Drinks* and *Energy Drinks* had the lowest mean HSR (0.5).

Table 6 Number of products with each Health Star Rating overall and by company

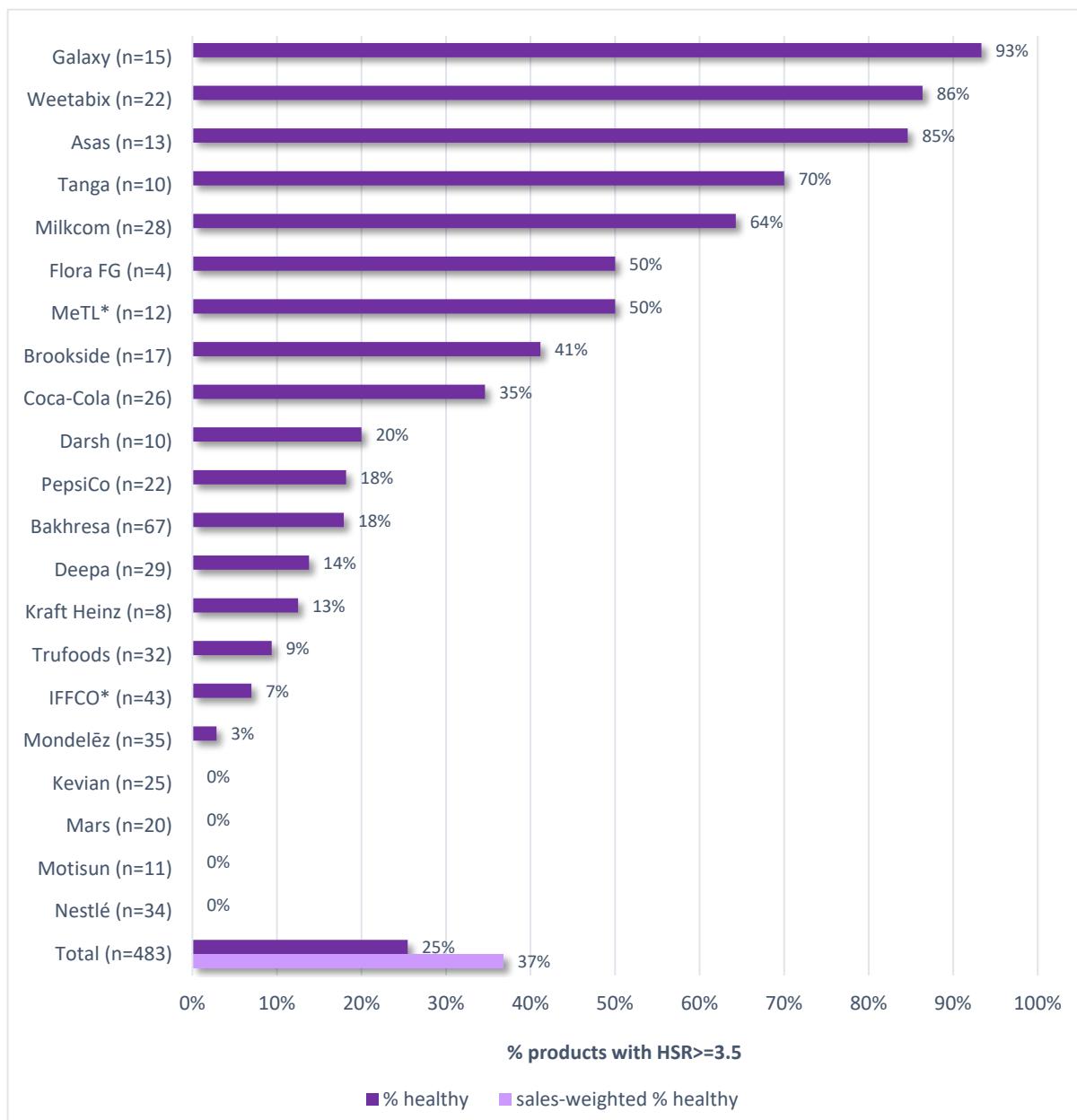
	Star rating (HSR model): 3.5 stars or more = healthy product										
	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	Total
Asas	0	0	0	0	0	2	1	9	1	0	13
Bakhresa	38	2	0	4	1	10	0	2	0	10	67
Brookside	4	1	0	0	0	5	1	3	2	1	17
Coca-Cola	16	1	0	0	0	0	4	0	0	5	26
Darsh	1	0	3	1	2	1	0	1	1	0	10
Deepa	0	0	1	1	20	3	3	0	0	1	29
Flora FG	1	0	0	0	1	0	2	0	0	0	4
Galaxy	1	0	0	0	0	0	4	7	2	1	15
IFFCO	16	13	6	3	1	1	2	1	0	0	43
Kevian	17	0	2	4	2	0	0	0	0	0	25
Kraft Heinz	0	1	3	2	1	0	0	0	0	1	8
Mars	18	1	1	0	0	0	0	0	0	0	20
MeTL	5	0	0	0	1	0	0	1	1	4	12
Milkcom	8	0	0	1	1	0	3	3	11	1	28
Mondelēz	31	2	1	0	0	0	0	0	0	1	35
Motisun	10	0	1	0	0	0	0	0	0	0	11
Nestlé	24	3	1	3	0	3	0	0	0	0	34
PepsiCo	11	0	7	0	0	0	3	0	0	1	22
Tanga	2	1	0	0	0	0	1	3	3	0	10
Trufoods	16	3	6	0	2	2	0	2	1	0	32
Weetabix	0	0	2	0	0	1	1	6	8	4	22
Total	219	28	34	19	32	28	25	38	30	30	483
% products	45.3%	5.8%	7.0%	3.9%	6.6%	5.8%	5.2%	7.9%	6.2%	6.2%	100.0%

Table 6 above shows the spread of results achieved by all companies across the HSR spectrum.

The 21 companies assessed offered products with a range of HSRs but a large number scored poorly. Over half (58.1%) of all products on the market scored 1.5 stars or below. The products that scored 3.5 and above totalled 123, accounting for only 25.5% of all products.

ANALYSIS 1b: Corporate rankings based upon proportion of 'healthy' products

Figure 4 Proportion of 'healthy' products and sales-weighted proportion of 'healthy' products by company - overall product portfolio (21 companies)



* MeTL and IFFCO sales mainly derive from oil products, however nutrition information was not available for these products in analysis.

Only 25% of products from all manufacturers were classified as 'healthy', which increased to a proportion of 37% after sales-weighting. Galaxy had the largest proportion of its portfolio achieving an HSR of 3.5 or above (93%) followed by Weetabix (86%) and Asas (85%). Four companies (Mars, Motisun, Kevian and Nestlē) had 0% of 'healthy' products. The proportion of 'healthy' products by company for foods and beverages separately can be found in [Annex Figure 3](#) and [Annex Figure 4](#).

Figure 5 Proportion of 'healthy' products by category – foods

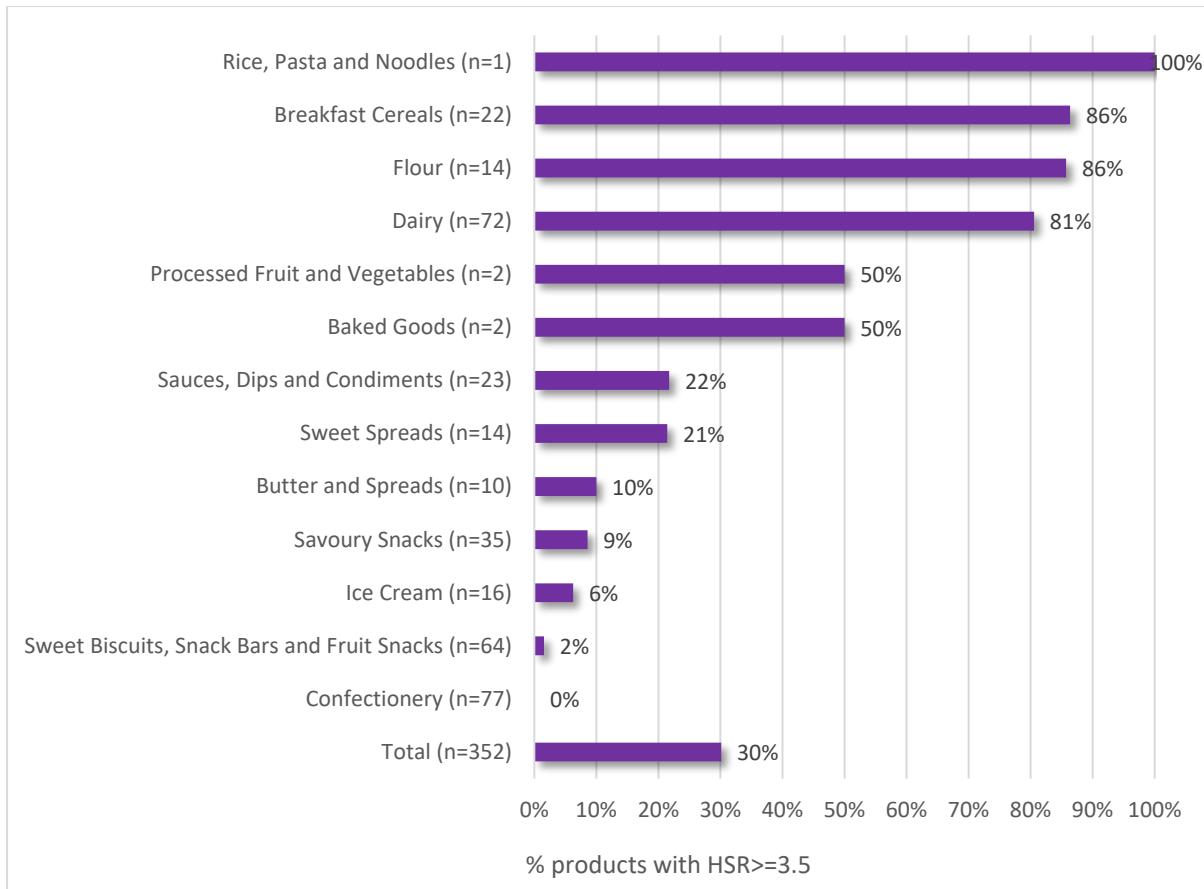
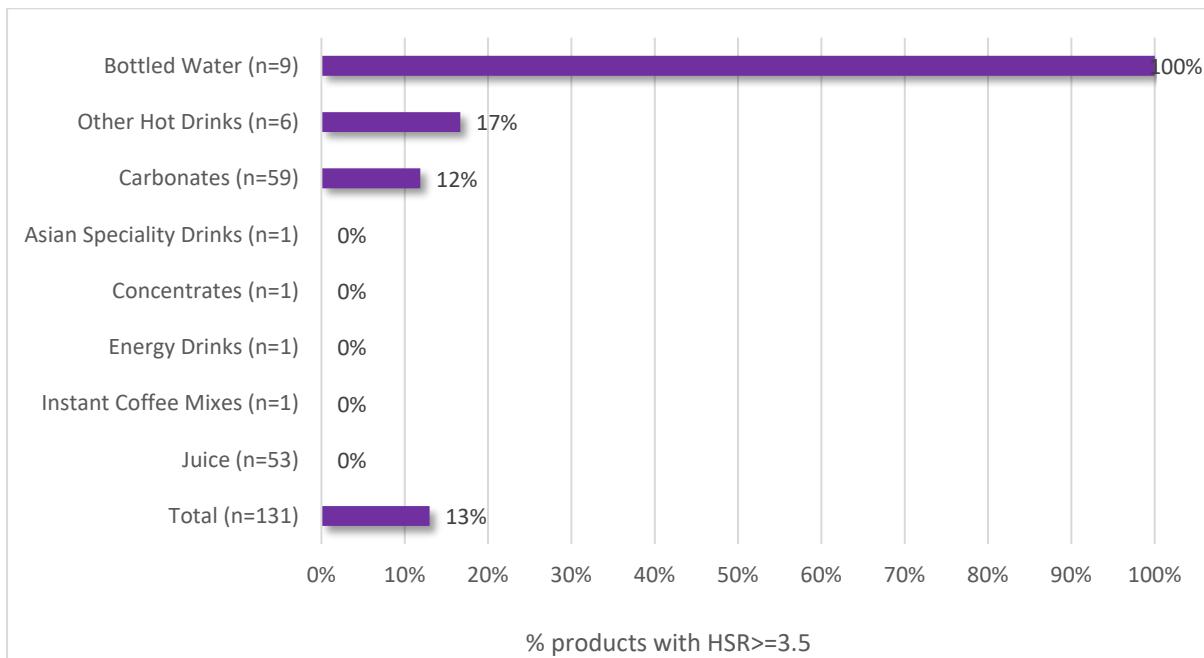


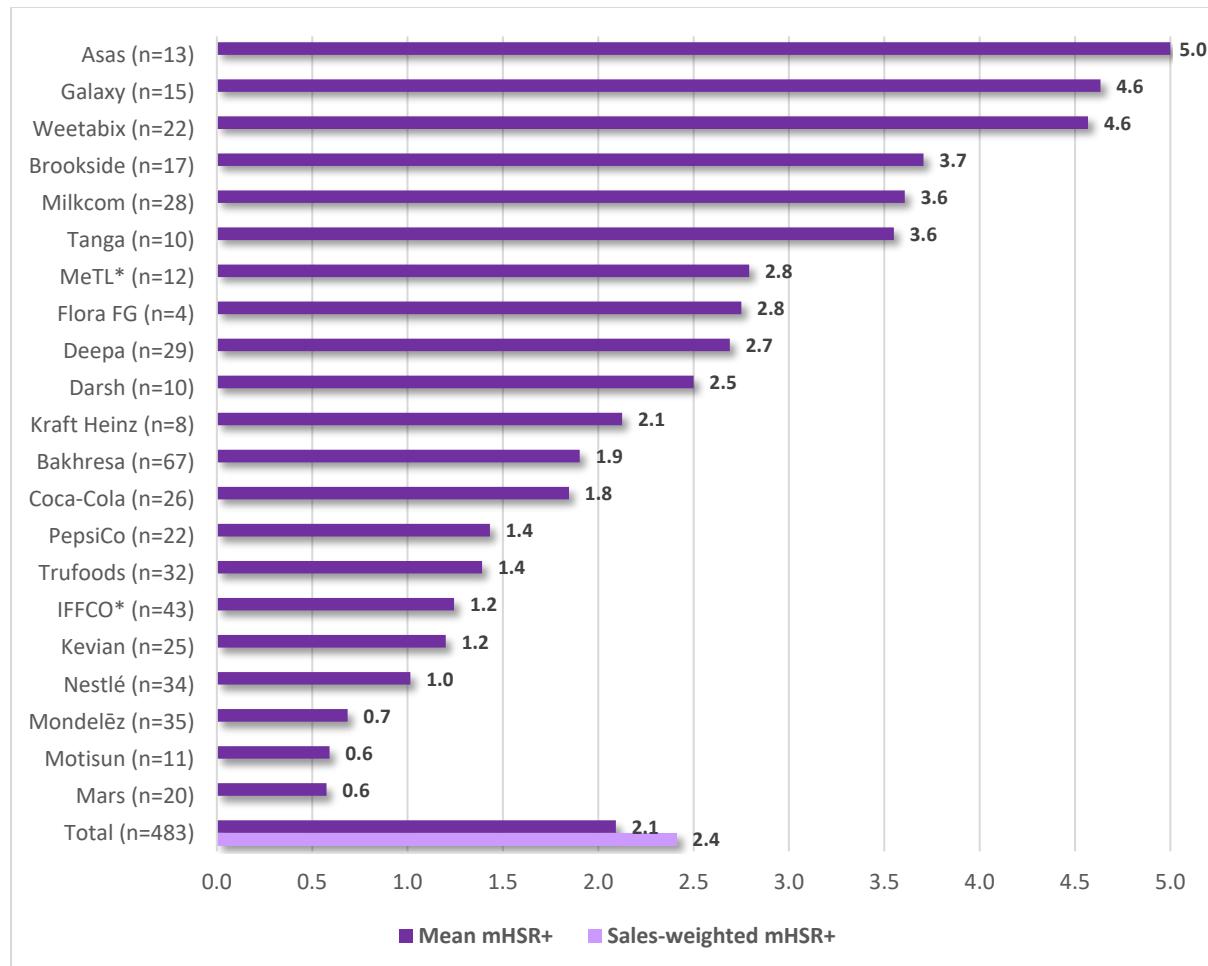
Figure 6 Proportion of 'healthy' products by category – beverages



Two categories (*Bottled Water* and *Rice, Pasta and Noodles*) had 100% of products with an $HSR \geq 3.5$. Similarly, six categories had zero products receiving an $HSR \geq 3.5$ (*Asian Specialty Drinks*, *Concentrates*, *Energy Drinks*, *Instant Coffee Mixes*, *Juice* and *Confectionery*).

ANALYSIS 2a: Corporate rankings based upon mean nutrient profile of products – mHSR+ micronutrients (mHSR+)

Figure 7 Mean mHSR+ and sales-weighted mean mHSR+ by company – overall product portfolio (21 companies)



* MeTL and IFFCO sales mainly derive from oil products, however nutrition information was not available for these products in analysis.

Overall, mean mHSR+ was 2.1 stars out of 5.0, increasing to 2.4 stars following sales-weighting (indicating healthier products accounted for a slightly higher proportion of sales). Asas had the highest mean mHSR+ of 5.0 out of 5.0, followed by Galaxy and Weetabix with 4.6. Mars and Motisun had the lowest mean mHSR+ of 0.6. Six of the 21 companies had a mean mHSR+ of ≥ 3.5 . Mean mHSR+ results by company for foods and beverages separately can be found in [Annex Figure 5](#) and [Annex Figure 6](#).

Figure 8 Mean mHSR+ by category – foods

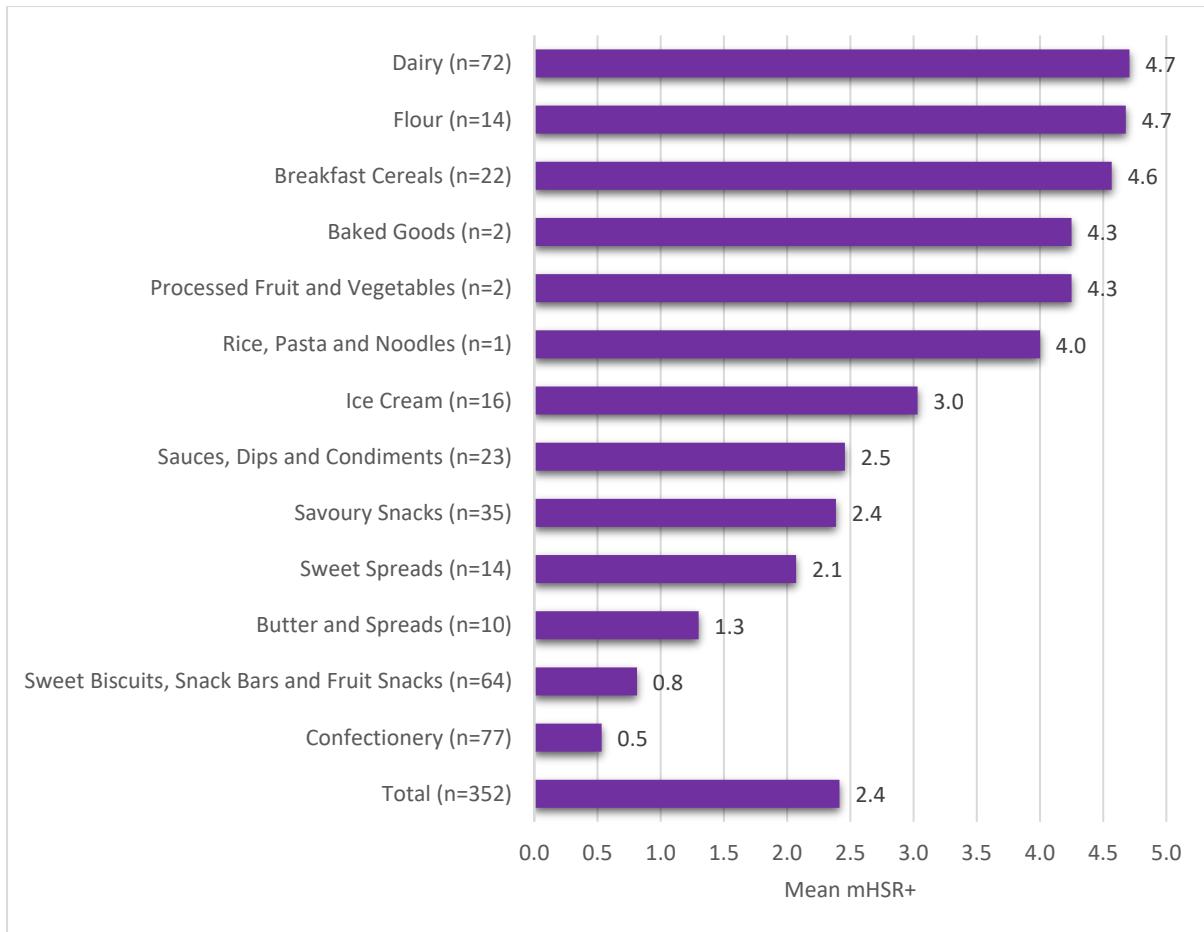
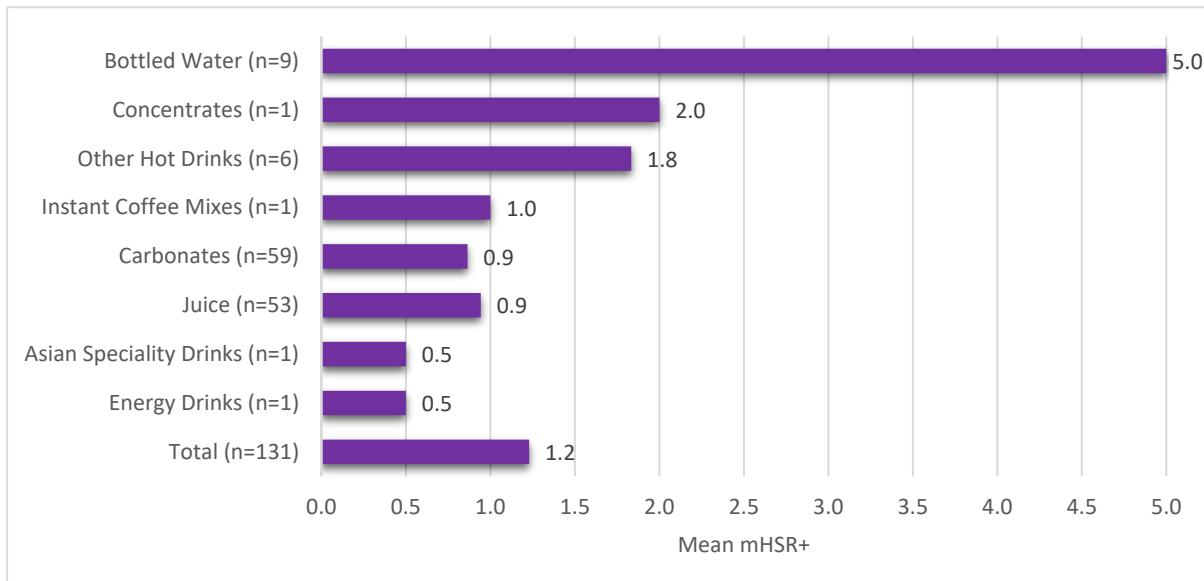


Figure 9 Mean mHSR+ by category - beverages



The mean mHSR+ for foods was higher at 2.4 than for beverages at 1.2. *Bottled Water* had the highest mean mHSR+ (5.0). *Asian Specialty Drinks*, *Energy Drinks* and *Confectionery* had the lowest mean mHSR+ (0.5).

Table 7 Number of products with each mHSR+ Rating overall and by company

	Star rating (mHSR+ model): 3.5 stars or more = healthy product										
	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	Total
Asas	0	0	0	0	0	0	0	0	0	13	13
Bakhresa	38	2	0	3	1	1	10	0	0	12	67
Brookside	4	1	0	0	0	0	0	0	0	12	17
Coca-Cola	16	1	0	0	0	0	4	0	0	5	26
Darsh	1	0	3	1	2	1	0	0	0	2	10
Deepa	0	0	1	1	20	3	3	0	0	1	29
Flora FG	1	0	0	0	1	0	1	0	1	0	4
Galaxy	1	0	0	0	0	0	0	1	0	13	15
IFFCO	16	13	6	3	0	1	3	1	0	0	43
Kevian	15	0	2	5	1	1	0	1	0	0	25
Kraft Heinz	0	1	3	2	1	0	0	0	0	1	8
Mars	18	1	1	0	0	0	0	0	0	0	20
MeTL	5	0	0	0	1	0	0	1	1	4	12
Milkcom	8	0	0	0	0	1	0	1	0	18	28
Mondelēz	31	2	1	0	0	0	0	0	0	1	35
Motisun	10	0	1	0	0	0	0	0	0	0	11
Nestlé	24	3	1	2	0	3	0	0	0	1	34
PepsiCo	11	0	7	0	0	0	3	0	0	1	22
Tanga	2	1	0	0	0	0	0	0	3	4	10
Trufoods	16	3	6	0	2	2	0	1	1	1	32
Weetabix	0	0	2	0	0	1	0	0	1	18	22
Total	217	28	34	17	29	14	24	6	7	107	483
% products	44.9%	5.8%	7.0%	3.5%	6.0%	2.9%	5.0%	1.2%	1.4%	22.2%	100.0%

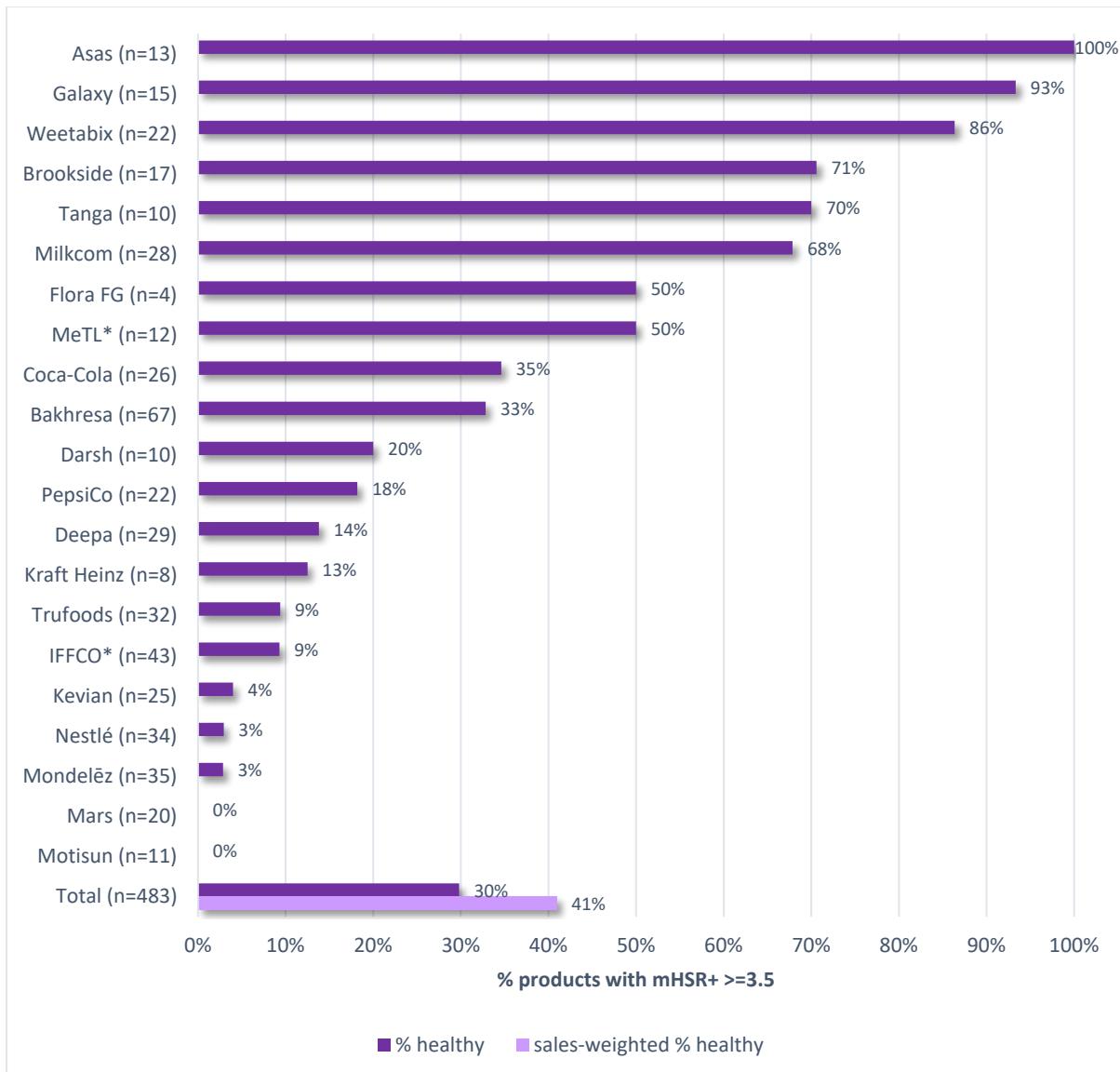
Table 7 above shows the spread of results achieved by all companies across the mHSR+ spectrum.

The 21 companies assessed offered products with a range of results but a large number scored poorly.

Over half (57.8%) of all products on the market scored 1.5 stars or below. The products that scored 3.5 and above totalled 144, accounting for only 29.8% of all products.

ANALYSIS 2b: Corporate rankings based upon proportion of 'healthy' products – mHSR+ micronutrients (mHSR+)

Figure 10 Proportion of 'healthy' products (mHSR+) by company - overall product portfolio (21 companies)



* MeTL and IFFCO sales mainly derive from oil products, however nutrition information was not available for these products in analysis.

Only 30% of products from all manufacturers were classified as 'healthy' under the mHSR+ model, which increased to a proportion of 41% after sales-weighting. Asas had the largest proportion of products achieving an mHSR+ of 3.5 or above (100%) followed by Galaxy (93%) and Weetabix (86%). Two companies (Mars and Motisun) had 0% of 'healthy' products under the mHSR+ model. The proportion of 'healthy' products using the mHSR+ model by company for foods and beverages separately can be found in [Annex Figure 7](#) and [Annex Figure 8](#).

Figure 11 Proportion of 'healthy' products (mHSR+) by category – foods

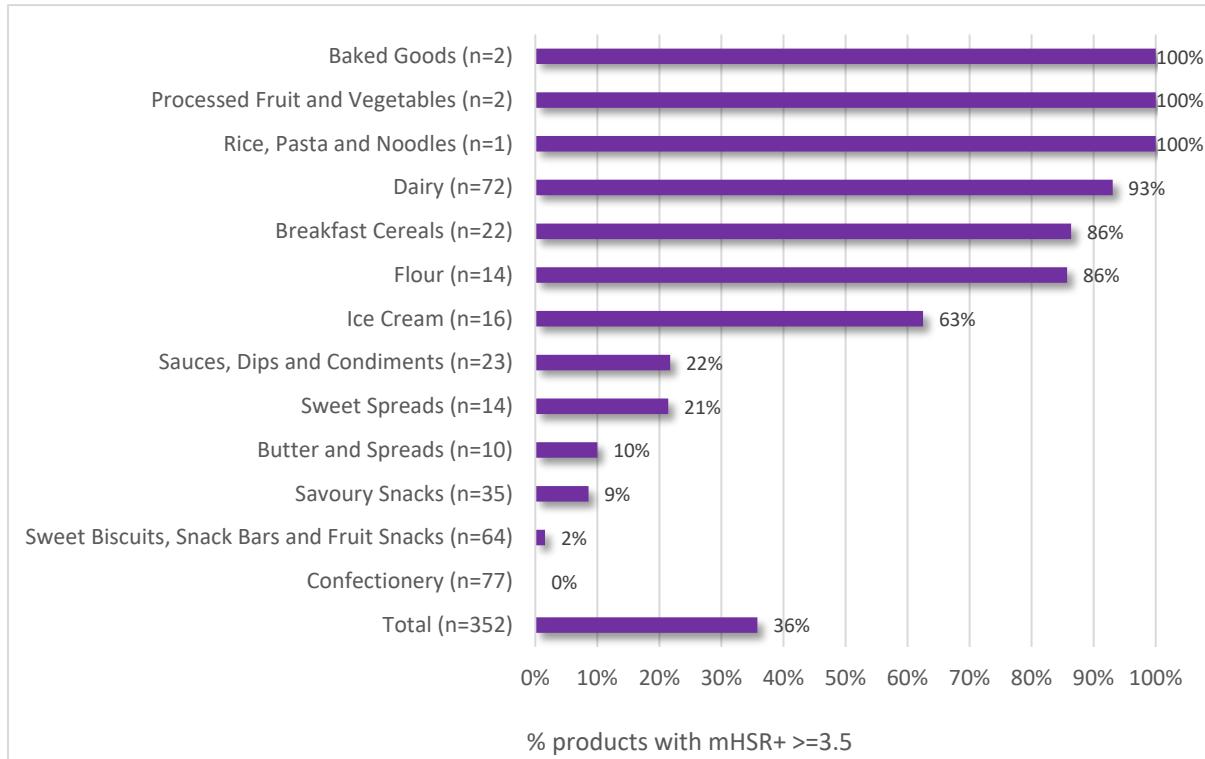
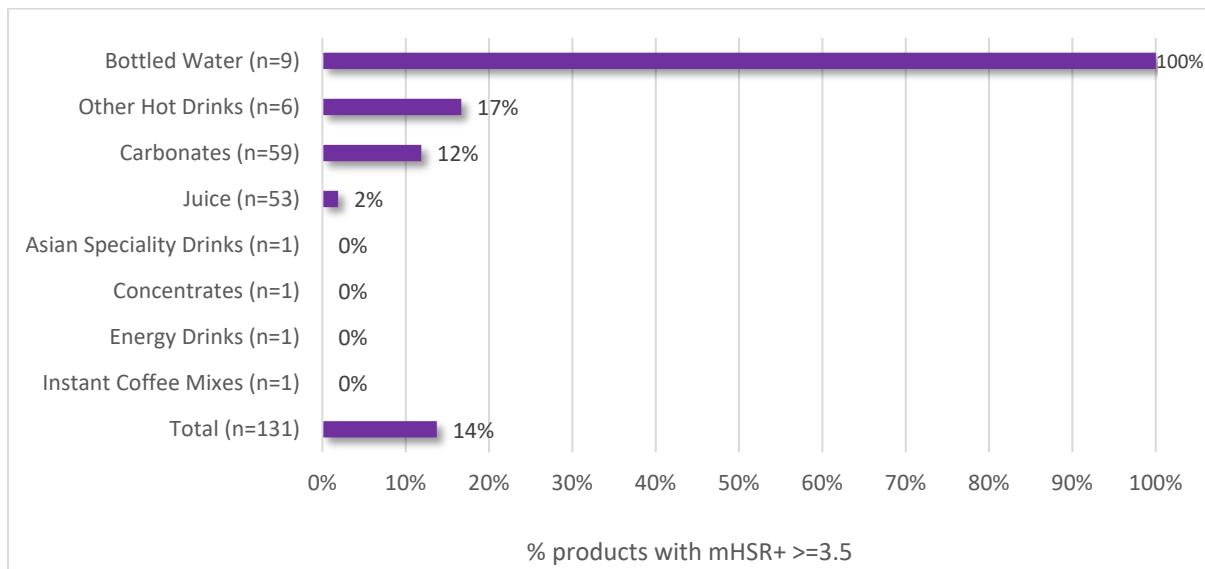


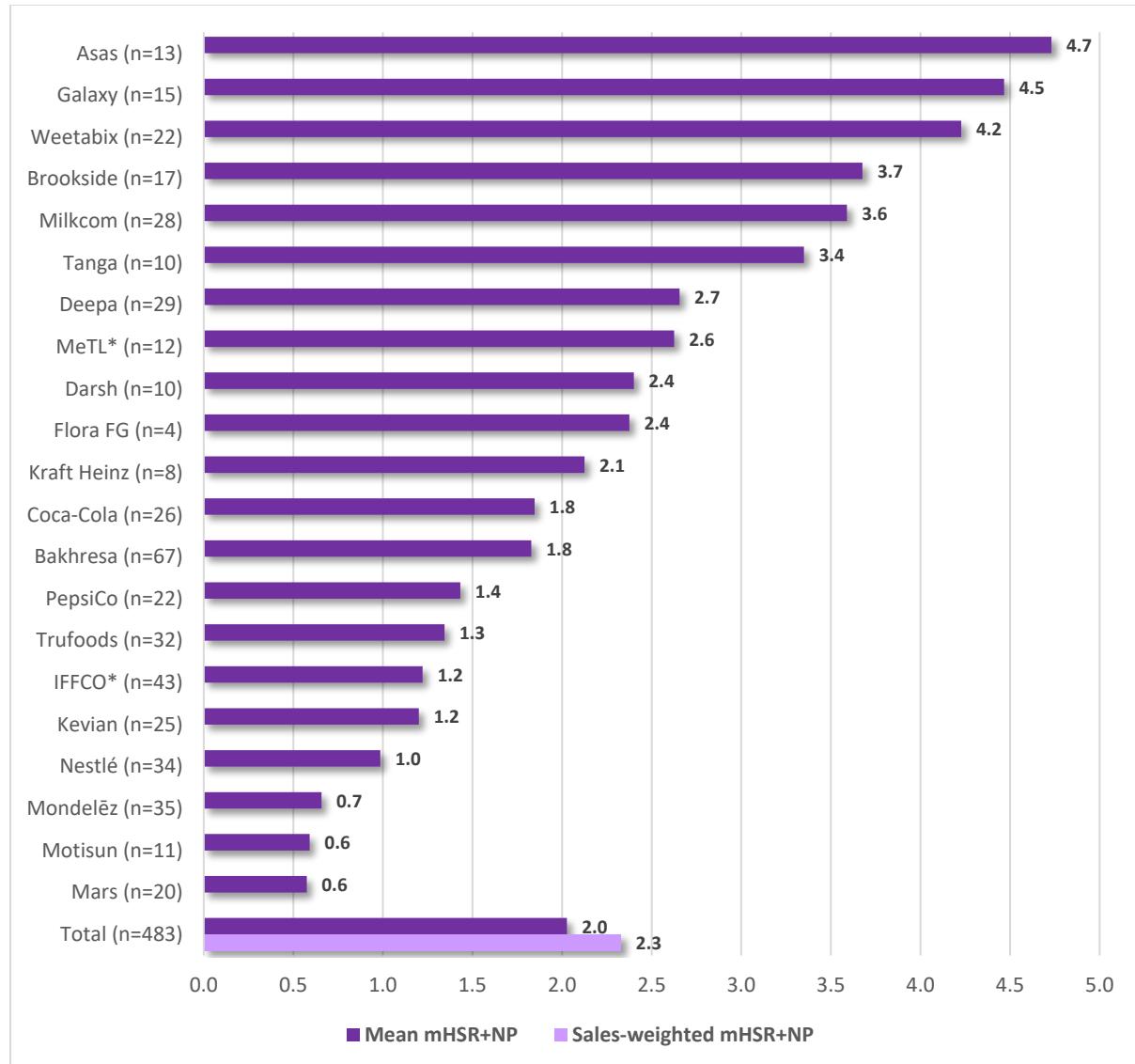
Figure 12 Proportion of 'healthy' products (mHSR+) by category – beverages



Four categories (*Baked Goods, Processed Fruit and Vegetables, Rice, Pasta and Noodles* and *Bottled Water*) had 100% of products with an mHSR+ ≥ 3.5 . Five categories had zero products receiving an mHSR+ ≥ 3.5 (*Asian Specialty Drinks, Concentrates, Energy Drinks, Instant Coffee Mixes* and *Confectionery*).

ANALYSIS 3a: Corporate rankings based upon mean nutrient profile of products – mHSR+ micronutrients (no protein) (mHSR+NP)

Figure 13 Mean mHSR+NP and sales-weighted mean mHSR+NP by company – overall product portfolio (21 companies)



* MeTL and IFFCO sales mainly derive from oil products, however nutrition information was not available for these products in analysis.

Overall, mean mHSR+NP was 2.0 stars out of 5.0, increasing to 2.3 stars following sales-weighting (indicating healthier products accounted for a slightly higher proportion of sales). Asas had the highest mean mHSR+NP of 4.7 out of 5.0, followed by Galaxy with 4.5 and Weetabix with 4.2. Mars and Motisun had the lowest mean mHSR+NP of 0.6. Five of the 21 companies had a mean mHSR+NP of ≥3.5. Mean mHSR+NP results by company for foods and beverages separately can be found in [Annex Figure 9](#) and [Annex Figure 10](#).

Figure 14 Mean mHSR+NP by category – foods

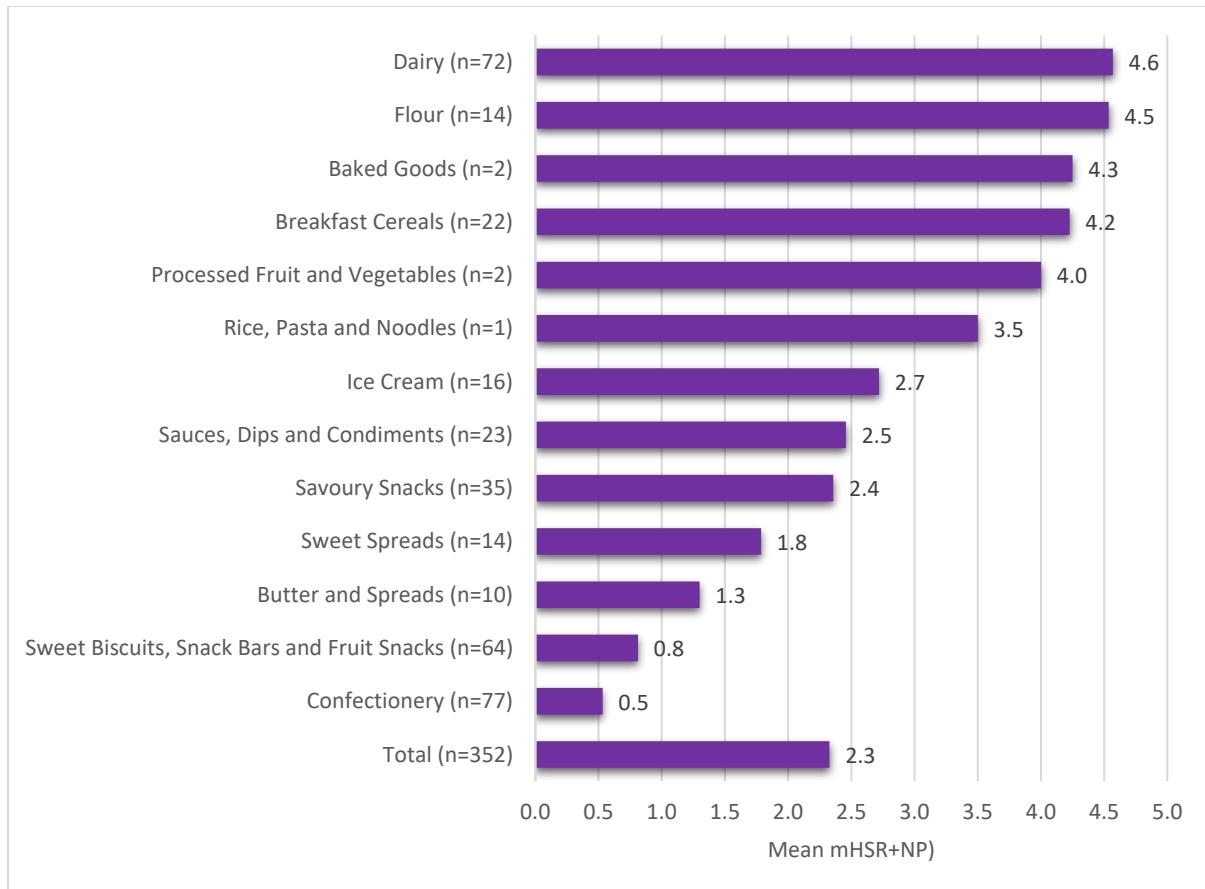
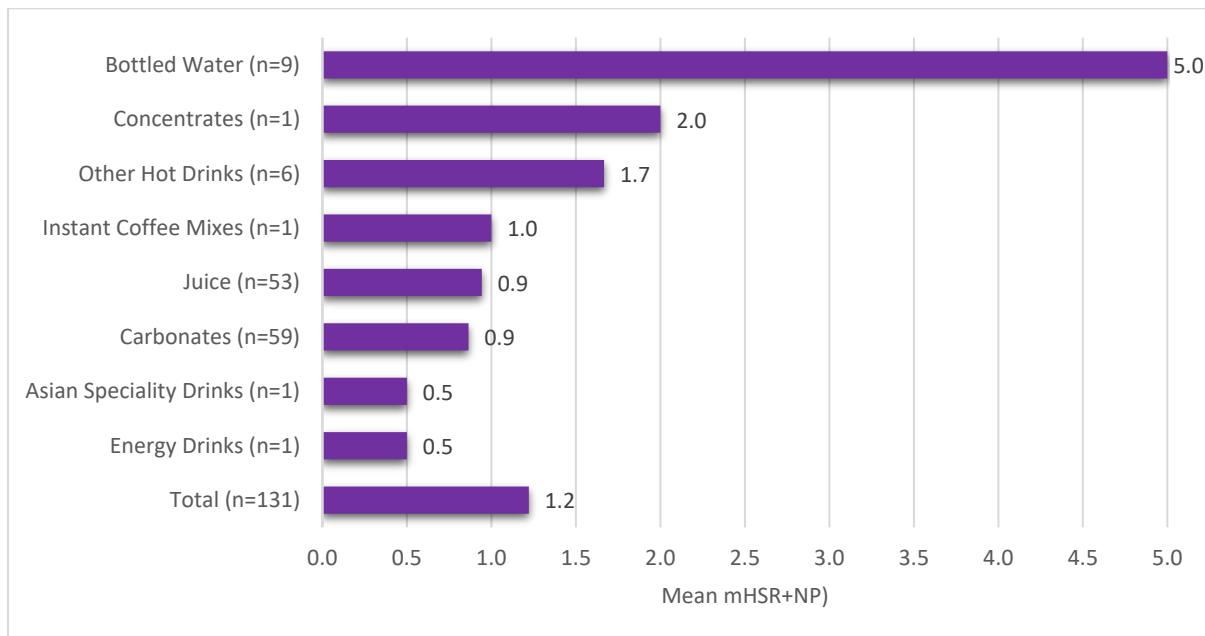


Figure 15 Mean mHSR+NP by category - beverages



The mean mHSR+NP for foods was higher at 2.3 than for beverages at 1.2. *Bottled Water* had the highest mean mHSR+NP of 5.0 followed by *Dairy* (4.6). *Confectionery*, *Energy Drinks* and *Asian Specialty Drinks* had the lowest mean mHSR+NP (0.5).

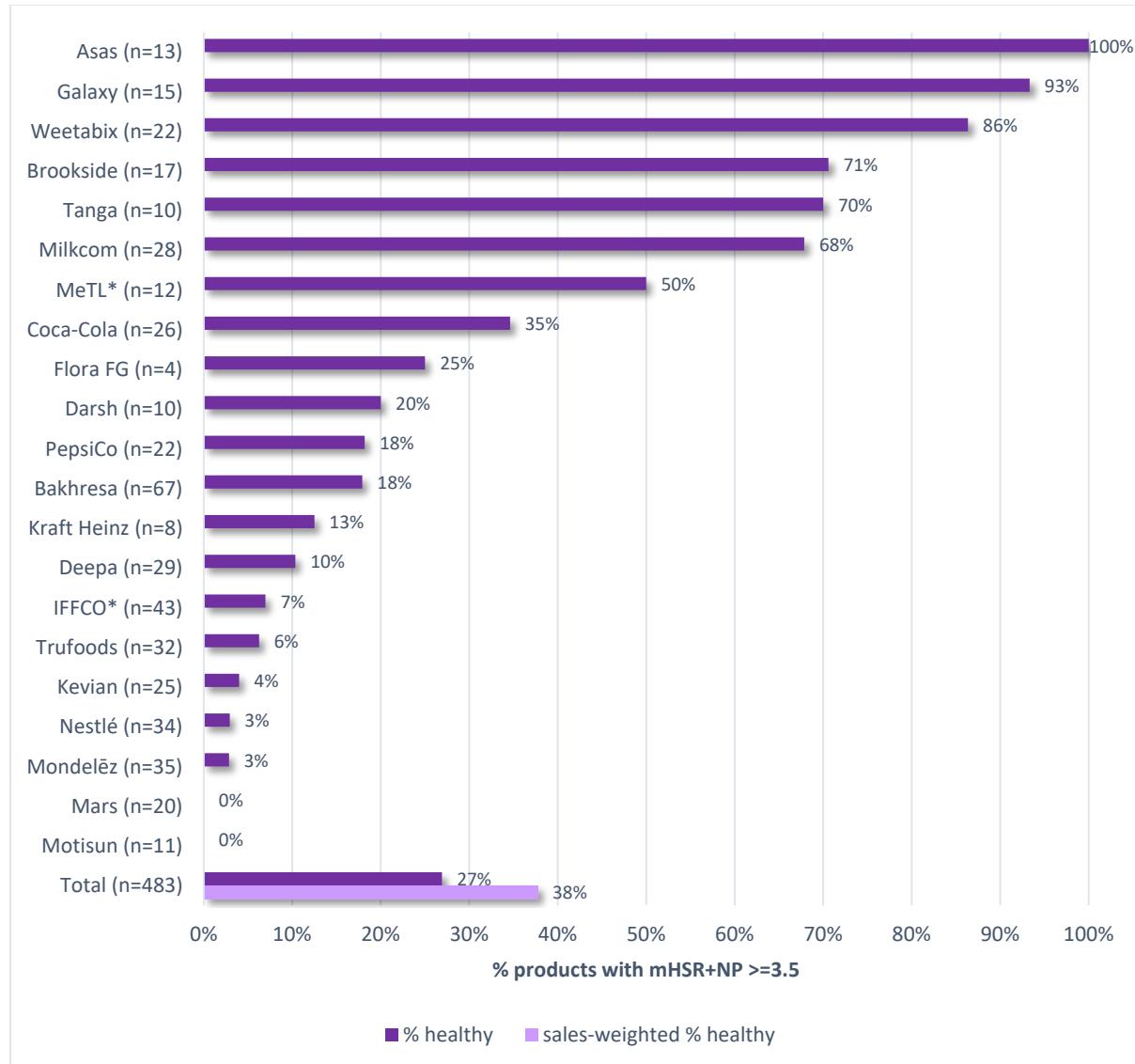
Table 8 Number of products with each mHSR+NP Rating overall and by company

	Star rating (mHSR+NP model): 3.5 stars or more = healthy product										
	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	Total
Asas	0	0	0	0	0	0	0	0	7	6	13
Bakhresa	38	2	0	3	1	11	0	0	0	12	67
Brookside	4	1	0	0	0	0	0	0	1	11	17
Coca-Cola	16	1	0	0	0	0	4	0	0	5	26
Darsh	1	0	3	1	2	1	0	1	0	1	10
Deepa	0	0	1	1	21	3	2	0	0	1	29
Flora FG	1	0	0	0	1	1	1	0	0	0	4
Galaxy	1	0	0	0	0	0	1	0	4	9	15
IFFCO	16	13	6	3	0	2	3	0	0	0	43
Kevian	15	0	2	5	1	1	0	1	0	0	25
Kraft Heinz	0	1	3	2	1	0	0	0	0	1	8
Mars	18	1	1	0	0	0	0	0	0	0	20
MeTL	5	0	0	0	1	0	0	2	3	1	12
Milkcom	8	0	0	0	0	1	1	0	0	18	28
Mondelēz	31	2	1	0	0	0	0	1	0	0	35
Motisun	10	0	1	0	0	0	0	0	0	0	11
Nestlé	24	3	1	2	2	1	0	0	0	1	34
PepsiCo	11	0	7	0	0	0	3	0	0	1	22
Tanga	2	1	0	0	0	0	0	3	1	3	10
Trufoods	16	3	6	0	2	3	0	1	0	1	32
Weetabix	0	0	2	0	0	1	0	2	12	5	22
Total	217	28	34	17	32	25	15	11	28	76	483
% products	44.9%	5.8%	7.0%	3.5%	6.6%	5.2%	3.1%	2.3%	5.8%	15.7%	100.0%

Table 8 above shows the spread of results achieved by all companies across the mHSR+NP spectrum. The 21 companies assessed offered products with a range of results but a large number scored poorly. Over half (57.8%) of all products on the market scored 1.5 stars or below. The products that scored 3.5 and above totalled 130, accounting for only 26.9% of all products.

ANALYSIS 3b: Corporate rankings based upon proportion of 'healthy' products – mHSR+NP

Figure 16 Proportion of 'healthy' products (mHSR+NP) by company - overall product portfolio (21 companies)



Only 27% of products from all manufacturers were classified as 'healthy' under the mHSR+NP model, which increased to a proportion of 38% after sales-weighting. Asas had the largest proportion of products achieving an mHSR+NP of 3.5 or above (100%) followed by Galaxy (93%) and Weetabix (86%). Two companies (Mars and Motisun) had 0% of 'healthy' products under the mHSR+NP model. These results mirrored the mHSR+ results. The proportion of 'healthy' products using mHSR+NP by company for foods and beverages separately can be found in [Annex Figure 11](#) and [Annex Figure 12](#).

Figure 17 Proportion of 'healthy' products ($mHSR+NP$) by category – foods

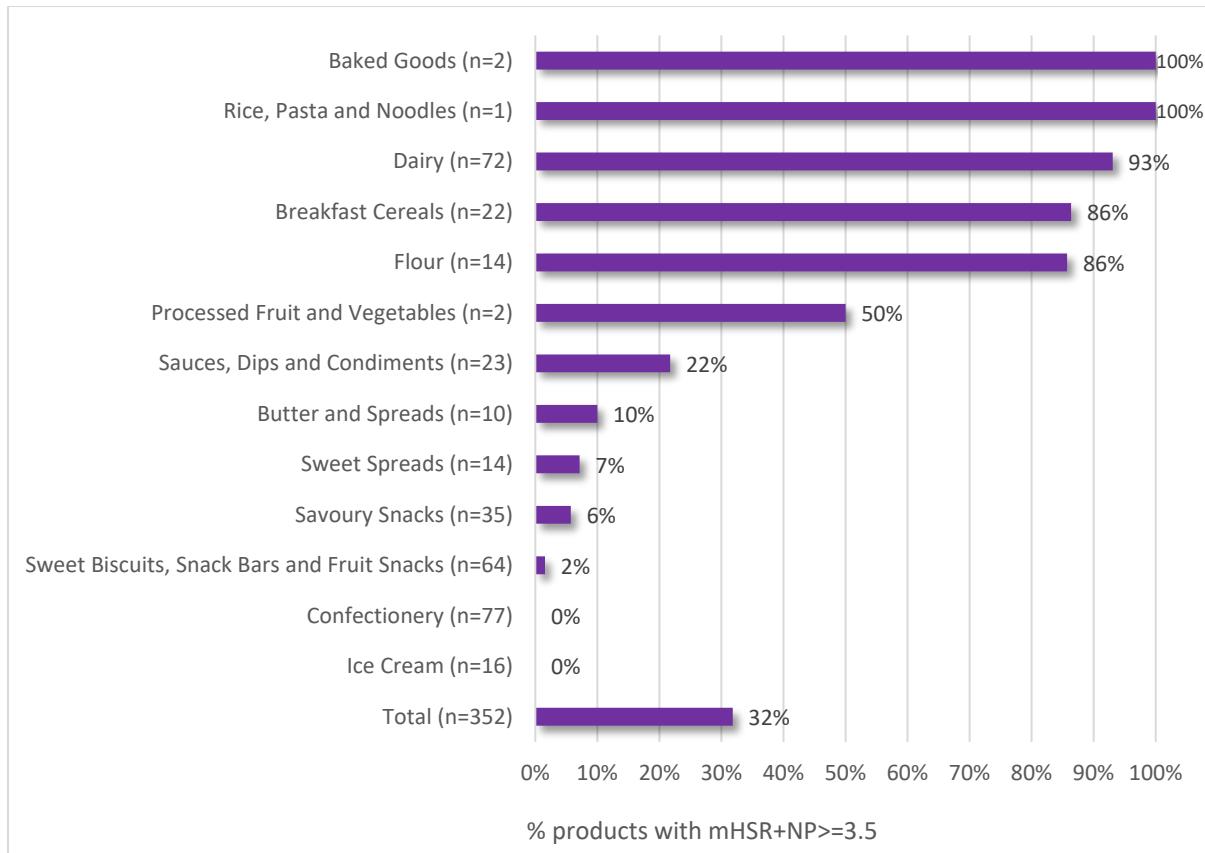
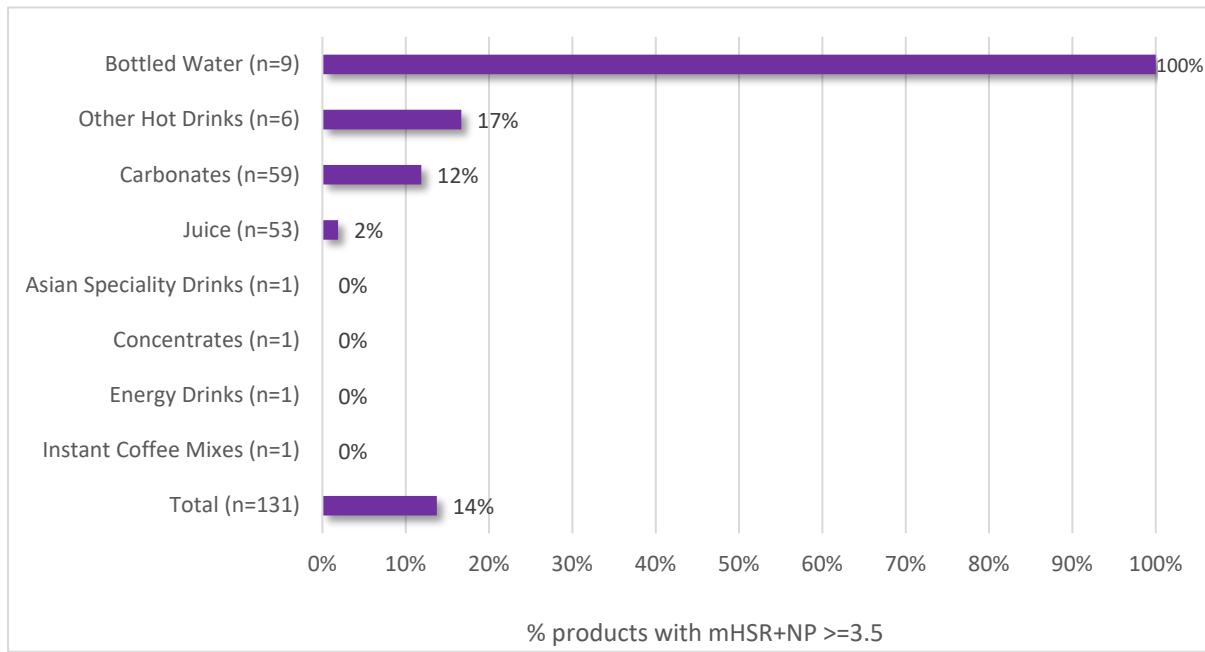


Figure 18 Proportion of 'healthy' products ($mHSR+NP$) by category – beverages



Three categories (*Baked Goods*, *Rice, Pasta and Noodles* and *Bottled Water*) had 100% of products with an $mHSR+NP \geq 3.5$. Six categories had zero products receiving an $mHSR+NP \geq 3.5$ (*Concentrates*, *Energy Drinks*, *Instant Coffee Mixes*, *Ice Cream*, *Confectionery* and *Asian Specialty Drinks*).

RESULTS – (4) World Health Organization African Region Nutrient Profile Model

Products included

Initially, n=713 products were identified manufactured by the 21 included companies. Of these, n=217 were excluded due to either erroneous data, being duplicate products or not having any nutritional information available. This left n=496 unique products for the WHO AFRO analysis from 21 companies.

Table 9 Number of food products by company in EMI subsets, for WHO AFRO analysis

	Breakfast Cereals	Butter and Spreads	Confectionery	Dairy	Ice Cream	Processed Fruit & Vegetables	Rice, Pasta & Noodles	Sauces, Dips & Condiments	Savoury Snacks	Sweet Biscuits	Sweet Spreads	Total
Asas	0	0	0	13	0	0	0	0	0	0	0	13
Bakhresa	0	0	0	3	10	1	0	1	0	12	0	27
Brookside	0	3	0	16	0	0	0	0	0	0	0	19
Darsh	0	0	0	0	0	0	0	4	0	0	5	9
Deepa	0	0	0	0	0	0	0	0	27	0	0	27
Flora	0	2	0	0	0	0	0	0	0	0	2	4
Galaxy	0	1	0	14	0	0	0	0	0	0	0	15
IFFCO	0	0	5	0	5	0	1	1	0	30	0	42
Kraft	0	0	0	0	0	1	0	8	0	0	0	9
Mars	0	0	21	0	0	0	0	0	0	0	0	21
MeTL	0	1	0	0	0	0	0	1	0	0	0	2
Milkcom	0	0	0	18	1	0	0	0	0	0	0	19
Mondelēz	0	0	28	0	0	0	0	0	0	4	0	32
Motisun	0	0	0	0	0	0	0	0	1	0	0	1
Nestlé	0	0	24	4	0	0	0	1	0	0	0	29
PepsiCo	0	0	0	0	0	0	0	0	7	0	0	7
Tanga	0	3	0	7	0	0	0	0	0	0	0	10
Trufoods	0	0	0	0	0	0	0	5	0	19	9	33
Weetabix	22	0	0	0	0	0	0	0	0	0	0	22
Total	22	10	78	75	16	2	1	21	35	65	16	341

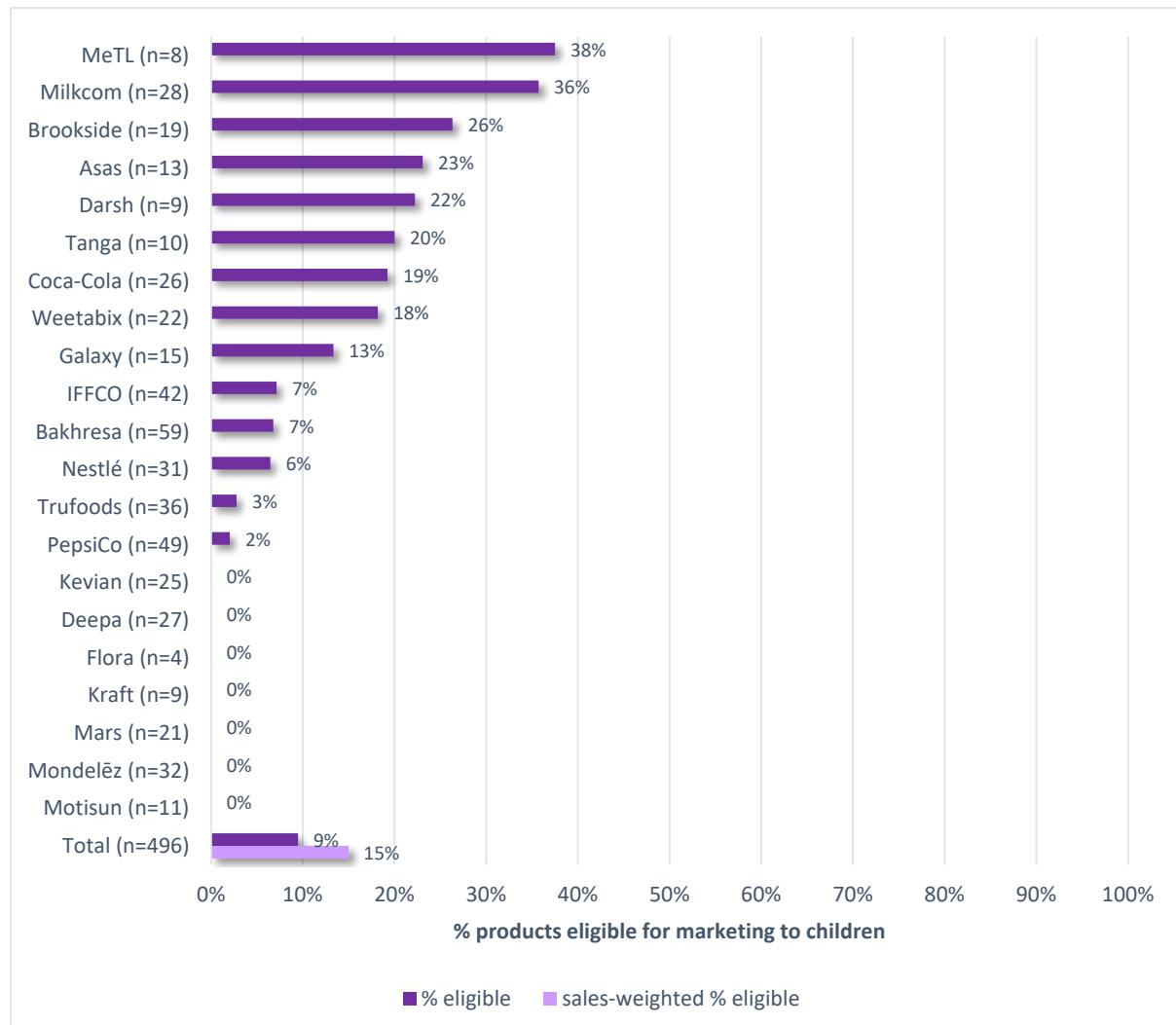
Table 10 Number of beverage products by company in EMI subsets, for WHO AFRO analysis

EMI subset	Asian Specialty Drinks	Bottled Water	Carbonates	Concentrates	Energy Drinks	Instant Coffee Mixes	Juice	Other Hot Drinks	Total
Bakhresa	0	1	11	0	1	0	19	0	32
Coca-Cola	0	5	19	0	0	0	2	0	26
Kevian	1	0	0	0	0	0	24	0	25
MeTL	0	1	5	0	0	0	0	0	6
Milkcom	0	1	8	0	0	0	0	0	9
Motisun	0	0	7	0	0	0	3	0	10
Nestlé	0	0	0	1	0	1	0	0	2
PepsiCo	0	1	9	0	0	0	32	0	42
Trufoods	0	0	0	0	0	0	0	3	3
Total	1	9	59	1	1	1	80	3	155

The number of products examined in the WHO analysis ranged from n=4 products for Flora to n=59 products for Bakhresa. The biggest EMI subsets were *Dairy* (n=75), *Juice* (n=80) and *Confectionery* (n=78). The smallest subsets were *Asian Specialty Drinks*, *Concentrates*, *Energy Drinks*, *Instant Coffee Mixes* and *Rice, Pasta and Noodles* (n=1)

ANALYSIS 4: Corporate ranking based upon proportions and sales-weighted proportions of products meeting WHO AFRO eligibility criteria

Figure 19 Proportions of products meeting WHO AFRO eligibility criteria for marketing to children – overall product portfolio (21 companies)



A low proportion of food products (9%) offered by the companies could be marketed to children using the WHO AFRO eligibility criteria, increasing to 15% following sales-weighting. MeTL had the highest proportion of products eligible (38%) followed by Milkcom (36%) and Brookside (26%). Seven companies had 0% of their portfolios eligible for marketing to children. Beverage products overall only had 6% of products eligible and food had 11%. *Bottled Water* and *Rice, Pasta and Noodles* had the highest proportion of eligible products (100%). Eight categories had zero products eligible under WHO AFRO. The proportion of eligible products under the WHO AFRO model by company for foods and beverages separately can be found in [Annex Figure 13](#) and [Annex Figure 14](#).

Figure 20 Proportions of products meeting WHO AFRO eligibility criteria for marketing to children, by category – foods

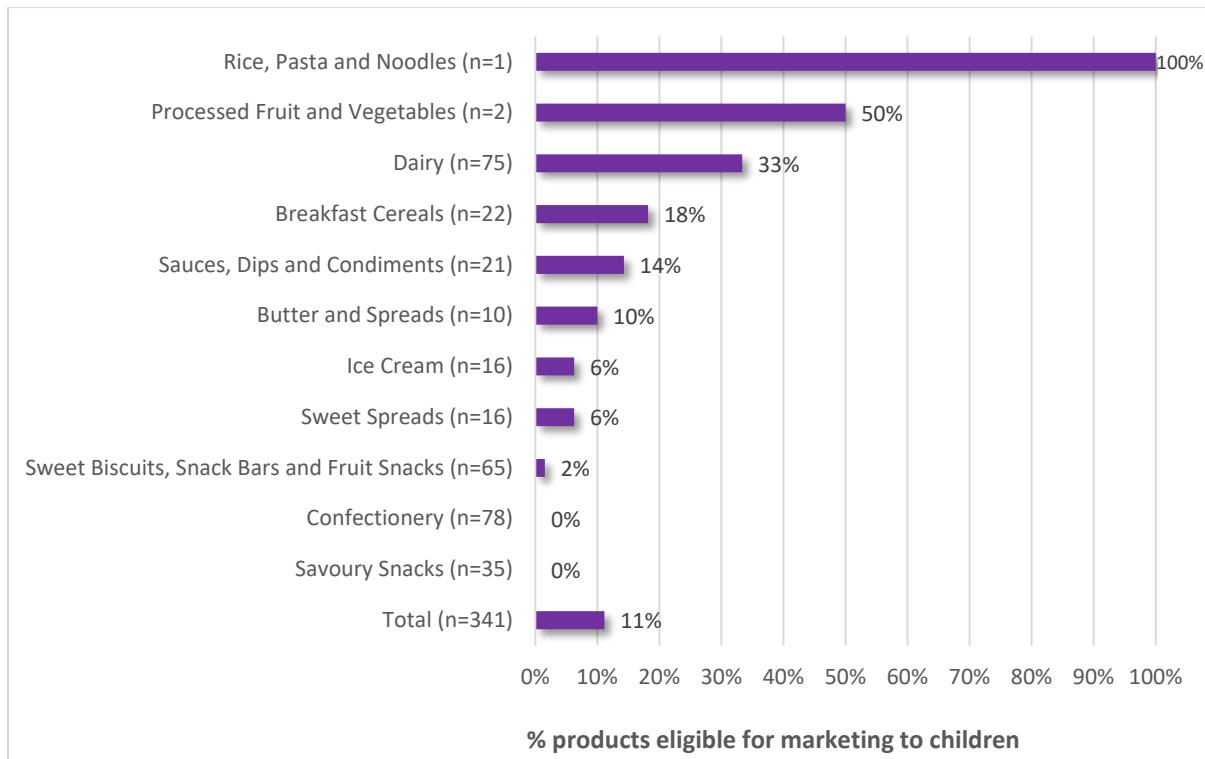
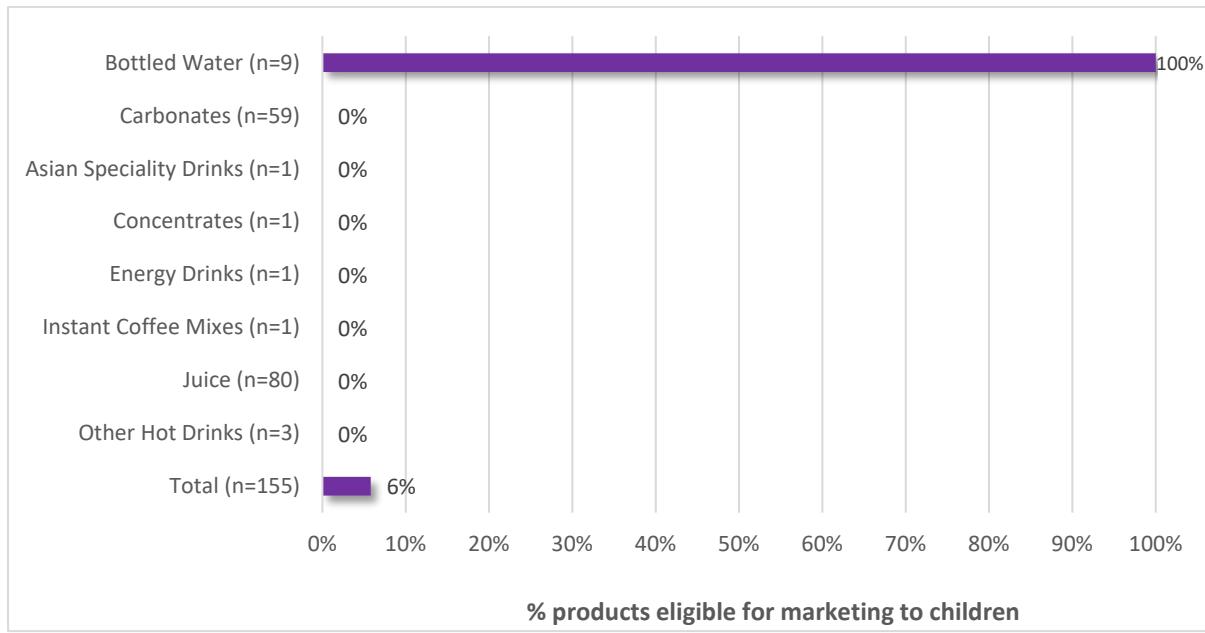


Figure 21 Proportions of products meeting WHO AFRO eligibility criteria for marketing to children, by category – beverages



RESULTS – (5) Nutrient Profile Model Comparisons

Summary

In this report, four different approaches were used to examine the healthiness of the Tanzanian packaged food supply. Three variations of the Health Star Rating were used (the original algorithm as well as two modified algorithms incorporating micronutrient levels), as was the WHO AFRO nutrient profile model. All nutrient profile models showed a low level of overall healthiness, however there were distinct differences between the models. The following section outlines and discusses some of these differences.

Table 11 Comparative scores of companies based upon the different evaluation methods

Company	HSR		mHSR+		mHSR+NP		WHO
	Mean	% healthy	Mean	% healthy	Mean	% healthy	% eligible
Asas	3.8	85%	5.0	100%	4.7	100%	23%
Bakhresa	1.8	18%	1.9	33%	1.8	18%	7%
Brookside	2.8	41%	3.7	71%	3.7	71%	26%
Coca-Cola	1.8	35%	1.8	35%	1.8	35%	19%
Darsh	2.4	20%	2.5	20%	2.4	20%	22%
Deepa	2.7	14%	2.7	14%	2.7	10%	0%
Flora FG	2.5	50%	2.8	50%	2.4	25%	0%
Galaxy	3.8	93%	4.6	93%	4.5	93%	13%
IFFCO	1.2	7%	1.2	9%	1.2	7%	7%
Kevian	1.0	0%	1.2	4%	1.2	4%	0%
Kraft Heinz	2.1	13%	2.1	13%	2.1	13%	0%
Mars	0.6	0%	0.6	0%	0.6	0%	0%
MeTL	2.8	50%	2.8	50%	2.6	50%	38%
Milkcom	3.1	64%	3.6	68%	3.6	68%	36%
Mondelēz	0.7	3%	0.7	3%	0.7	3%	0%
Motisun	0.6	0%	0.6	0%	0.6	0%	0%
Nestlé	0.9	0%	1.0	3%	1.0	3%	6%
PepsiCo	1.4	18%	1.4	18%	1.4	18%	2%
Tanga	3.1	70%	3.6	70%	3.4	70%	20%
Trufoods	1.4	9%	1.4	9%	1.3	6%	3%
Weetabix	4.1	86%	4.6	86%	4.2	86%	18%

Analysis 5a: Comparison between all four nutrient profile models

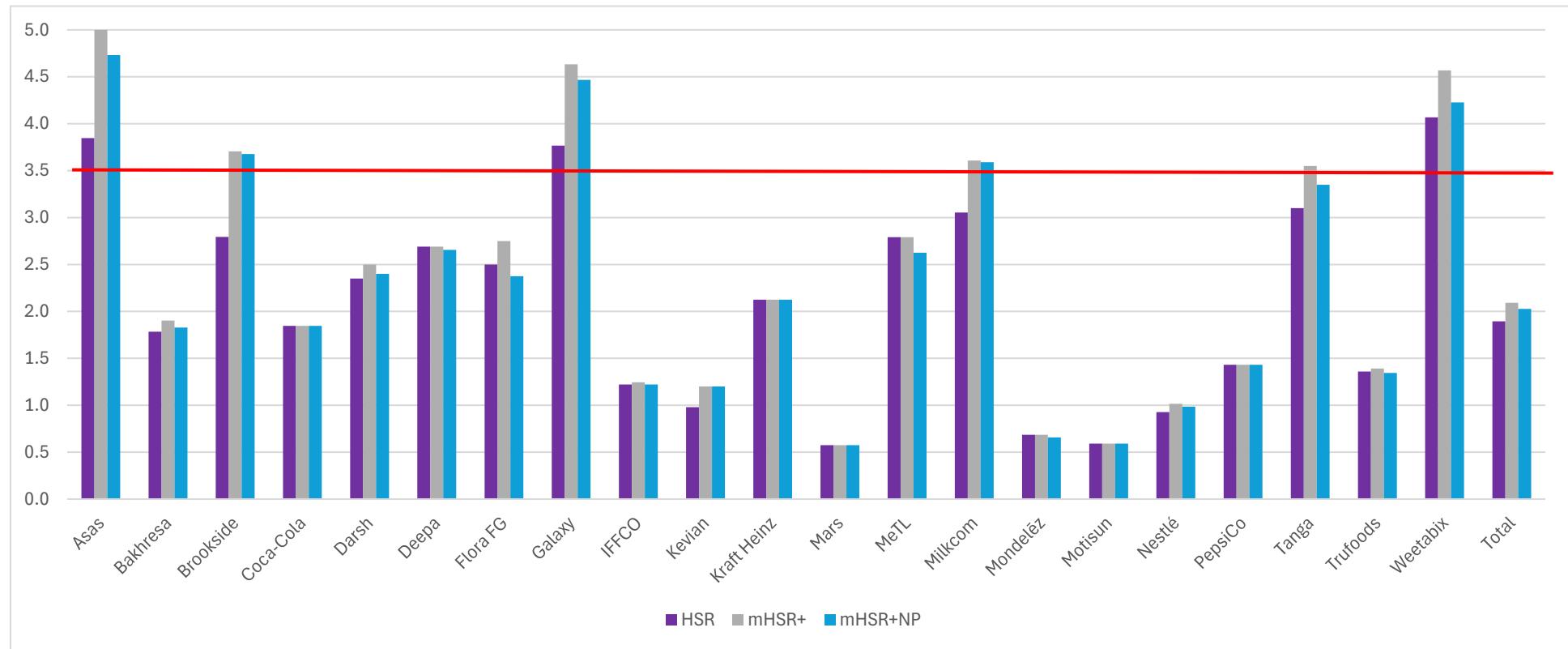
Table 12 on the previous page shows the mean HSR and proportion of products considered ‘healthier’ under each of the three HSR models examined, and the proportion of products considered ‘eligible’ under the WHO AFRO model. Differences between the three HSR models specifically are discussed in the following section. Companies with large differences in products considered ‘healthier’ under HSR and products eligible under the WHO AFRO included dairy companies such as Asas, Galaxy, Tanga and Milkcom, companies with predominantly spreads such as Flora FG, and breakfast cereal company Weetabix.

Overall, many dairy companies (such as Asas, Galaxy, Tanga and Milkcom) had a much higher proportion of products considered ‘healthier’ under the HSR compared to WHO AFRO model. This is due to dairy products such as yoghurts generally scoring highly under the HSR model, whereas there are strict penalties for sugar content under the WHO AFRO model. The WHO AFRO model is strict for yoghurts for example, with no products eligible if they contain added sugar. The HSR model in comparison is not a binary outcome, and the algorithm instead assigns negative “points” for each incremental increase in total sugar and saturated fat content. An additional factor is that for many companies, estimated values for nutrients such as saturated fat and total sugar were necessary as the company does not/did not provide this information on product packaging. For companies such as Flora FG that predominantly sell spreads (butters, peanut butters), the WHO AFRO criteria are strict compared to the HSR’s incremental approach to scoring. For Weetabix, the only breakfast cereal company, the lower proportion of products eligible under WHO AFRO is due to strict total sugar criteria. Similar to the reasoning for dairy, the HSR algorithm allows for an incremental approach to sugar content, and high sugar levels can often be “offset” by positive nutritional components such as fibre and protein for breakfast cereals.

ANALYSIS 5b: Comparison of HSR, mHSR+ and mHSR+NP

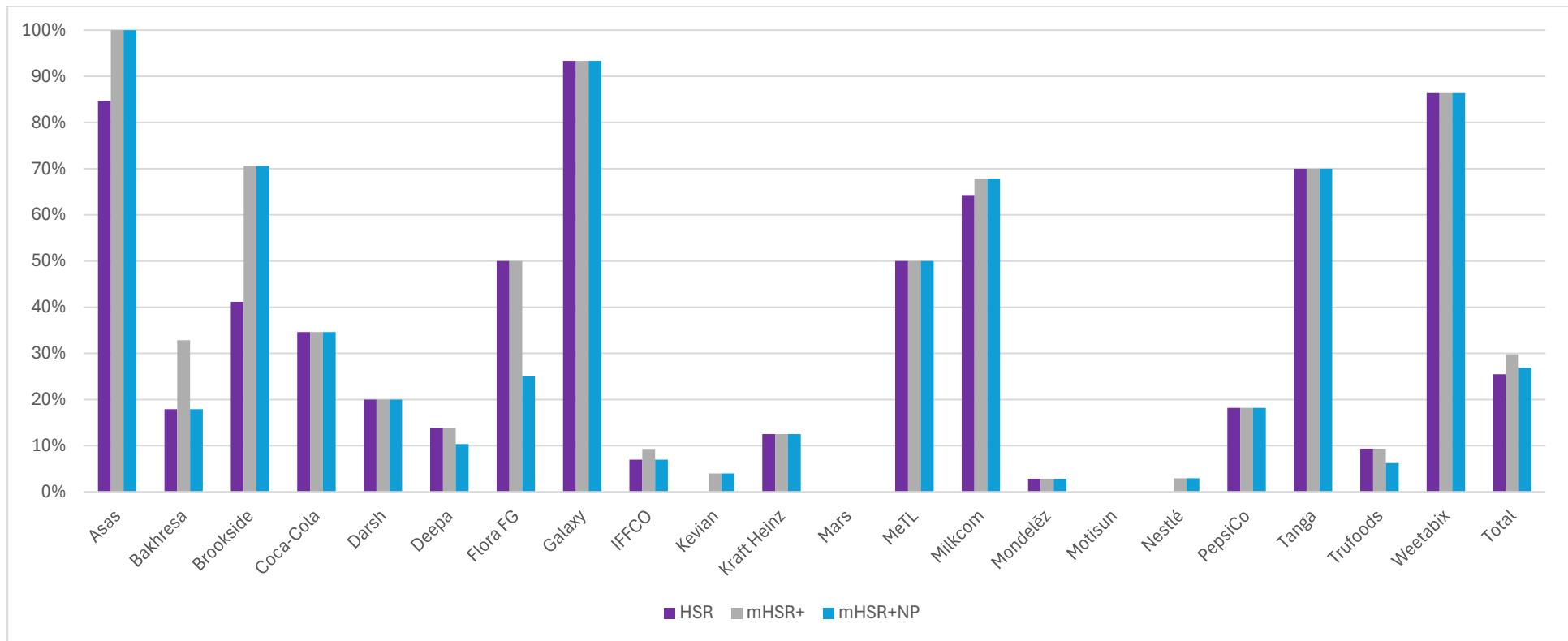
Figures 22 and 23 on the following pages compare the three HSR models used in this report (HSR, mHSR+ and mHSR+NP). Overall, mean HSR was highest under mHSR+ (2.1) compared to HSR (1.9) and mHSR+NP (2.0). Similarly, the proportion of products considered “healthy” was highest under mHSR+ (26%) and mHSR+NP (26%) compared to HSR (24%). This is expected given that the mHSR+ algorithm gives additional points to products that contain substantial levels of micronutrients. In some cases where the mHSR+NP result was lower than the HSR result (e.g. Mondelēz, MeTL, Flora FG and Darsh), this indicates that protein content is a key reason why these companies’ products are scoring well under the HSR, and that micronutrient content is not contributing to their overall healthiness score under the mHSR+ algorithm. The same thing can be seen with % healthiness in **Figure 23**. The mHSR+ algorithm takes the original HSR algorithm and gives extra points to products that contain a substantial level of one or more of six micronutrients. This means that the mHSR+ result will never be lower than the HSR result. However, the mHSR+NP algorithm takes the original HSR algorithm and gives extra points to products with micronutrients in the same way the mHSR+ algorithm does, however it also removes protein points (with the understanding that protein points under the original HSR were included as a proxy for micronutrient content). This is the reason why in some cases mHSR+NP can be lower than HSR

Figure 22 Comparative mean HSR results, by company, using HSR, mHSR+ and mHSR+NP



mHSR+ was highest for 11 out of the 21 companies, with HSR and mHSR+NP not highest for any of the 21 companies. Four companies had the exact same result under all three HSR schemes (Coca-Cola, Mars, Motisun, PepsiCo). Six companies showed a substantial increase in mean healthiness under mHSR+ and mHSR+NP compared to HSR (Asas, Brookside, Galaxy, Milkcom, Tanga and Weetabix).

Figure 23 Comparative % healthy results, by company, using HSR, mHSR+ and mHSR+NP



mHSR+ was highest for two out of the 21 companies (IFFCO and Bakhresa), with HSR and mHSR+NP not highest for any of the companies. Eleven of the 21 companies had the exact same proportion considered healthy under all three schemes. Five companies showed a substantial increase in the proportion of products considered “healthy” under mHSR+ and mHSR+NP compared to HSR (Asas, Brookside, Milkcom, Kevian and Nestlé).

CONCLUSIONS AND INTERPRETATION

Key findings

Mean healthiness of products (HSR)

- The overall sales-weighted mean healthiness of companies' products was 2.2 out of 5.0 and the mean healthiness of product portfolios varied substantially between companies (0.6 for Mars and Motisun to 4.1 for Weetabix). Differences in mean healthiness between companies reflected primarily differences in product mix but also to a lesser extent differences in the healthiness of products within the same categories. Companies such as Mars and Motisun, which make primarily products such as confectionery or soft drinks, generally scored poorly in each metric examined, whereas companies that sold primarily dairy products such as Milkcom and Asas, generally scored and ranked better.
- Rankings of companies varied depending upon whether the comparison was based upon all products, foods alone or beverages alone reflecting the importance of product mix in determining the average healthiness of the product portfolio.
- Inclusion of micronutrients in the mHSR+ algorithm overall improved mean healthiness scores (increasing from sales-weighted 2.2 under HSR to sales-weighted 2.4 under mHSR+). However, when protein was removed from the mHSR+ algorithm (mHSR+NP) overall sales-weighted results decreased slightly to 2.3. Five companies increased their rankings under mHSR+ compared to HSR and 11 companies improved their overall healthiness score.

Proportions of products defined as healthy (HSR)

- Just over a third of companies' products (sales-weighted) were defined as healthy (37%). The proportion of products defined as healthy varied greatly between companies (0% for Motisun, Nestlé and Mars to 93% for Galaxy). Similar to results for overall mean healthiness, companies with portfolios dominated by products such as confectionery (e.g. Mars) scored poorly using this metric and those with portfolios dominated by dairy products (e.g. Galaxy and Asas) scored better.
- Assessing the overall proportion of healthy products across all companies, the sales-weighted proportion of products with an HSR of 3.5 or above (37%) was substantially higher than the unweighted proportion of products (25%).

Proportions of products eligible for marketing to children (WHO AFRO)

- The sales-weighted proportion of products eligible for marketing to children (15%) was significantly lower than the proportion considered healthy under the HSR (37%). Six companies had no products eligible for marketing to children according to the WHO AFRO criteria. Similar to the sales-weighted proportion of products defined as 'healthy', the sales-weighted proportion of products eligible for marketing to children (15%) was higher than the unweighted proportion of products (9%).

Methodological limitations

The results of this research should be considered in relation to the following limitations:

The limited nutrition data available. The data available were in part insufficient to evaluate the nutritional value of the products because they are based on a larger number of nutrients than current Tanzanian regulations require to be listed on packs. The problem was addressed by using proxy data unless several data points were missing. Of note, no alternative nutrient profiling model has been identified that would make better use of the limited data available. The most likely impact of using proxy nutrient values is underestimation of the real differences between products, and correspondingly, therefore, underestimation of the real differences between companies.

The absence of a complete list of all marketed products. Listings of all products sold in Tanzania and their nutritional content were sought from the 27 companies but not all companies included in analysis provided them. The solution was to compile listings based upon data extracted from Innova Market Insight's Tanzania database as well as the dataset used in the 2024 *Global Product Profile*. It seems unlikely that

incomplete data collection has resulted in significant biases in the overall results, however for some specific companies the results may be skewed in a different direction. For example, IFFCO and MeTL both derive a large proportion of their revenue from edible oils, however no nutritional values for edible oils were provided by either company, and no nutritional information was able to be sourced from Innova Market Insights. It is possible that the results for these companies in this report do not accurately represent their product portfolios. This is a key example of the importance of data provision and availability in examining the healthiness of the packaged food supply.

Restriction of the analysis to 21 large companies. The assessment of 21 manufacturers operating in Tanzania was a pragmatic compromise designed to ensure feasibility and meaningful comparisons based upon the average nutritional composition of the majority of products made by each company. This strategy will not have affected the primary conclusions of the project about the relative nutritional quality of the products provided by the included companies but how the included companies compare to other smaller companies, artisanal/street food providers, quick service restaurants or home-cooked meals is unknown.

Limitations of the nutrient profiling tools. While the HSR is based upon extensive research and validation, there is continuing discussion of how the algorithm operates for some food categories. The HSR (and most other nutrient profile models) also does not consider the level of processing a product has gone through. This is also the first report to include the mHSR+ and mHSR+NP ratings to food and beverage products. These metrics were developed jointly between The George Institute and ATNi to incorporate micronutrient contents into the HSR algorithm, an important consideration in low-middle income countries such as Tanzania.

No consideration of serving size. Overweight and obesity can be influenced by the quantity of food people choose to consume at one sitting. This may be the case particularly for products provided in packages eaten at a single sitting. The association between serving size and portion size for products provided in packages that contain multiple servings is also not always strong. It has been argued that nutrient profiling models should include consideration of serving size but the absence of agreed national and international standards has meant that this has not proved possible to date.

Limited granularity of sales data. The sales data accessible from Euromonitor International are provided by category not by individual product. This limits the capacity to obtain robust sales-weighted estimates because it is not possible to precisely match a sales figure to an HSR value. In this project, erroneous results may have been generated because it is unlikely that sales volumes of every item sold by a company within a given category were the same. So, while the process should give a reasonable sales-weighted estimate of the mean healthiness of products, it is imperfect.

APPENDIX B – Results by category for each company

Table B1 Summary results by category for Asas

Asas							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Dairy	3.8	85%	5.0	100%	4.7	100%	23%
Total	3.8	85%	5.0	100%	4.7	100%	23%

Table B2 Summary results by category for Bakhresa

Bakhresa								
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO	
Baked Goods	5.0	100%	5.0	100%	5.0	100%	NA	
Bottled Water	5.0	100%	5.0	100%	5.0	100%	100%	
Carbonates	0.5	0%	0.5	0%	0.5	0%	0%	
Dairy	4.0	100%	5.0	100%	5.0	100%	67%	
Energy Drinks	0.5	0%	0.5	0%	0.5	0%	0%	
Flour	5.0	100%	5.0	100%	5.0	100%	NA	
Ice Cream	2.9	0%	3.4	90%	2.9	0%	0%	
Juice	0.8	0%	0.8	0%	0.8	0%	0%	
Processed Fruit and Vegetables	3.0	0%	3.5	100%	3.0	0%	100%	
Sauces, Dips and Condiments	1.0	0%	1.0	0%	1.0	0%	0%	
Sweet Biscuits, Snack Bars and Fruit Snacks	0.7	0%	0.7	0%	0.7	0%	0%	
Total	1.8	18%	1.9	33%	1.8	18%	7%	

Table B3 Summary results by category for Brookside

Brookside							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Butter and Spreads	0.7	0%	0.7	0%	0.7	0%	0%
Dairy	3.3	50%	4.4	86%	4.3	86%	31%
Total	2.8	41%	3.7	71%	3.7	71%	26%

Table B4 Summary results by category for Coca-Cola

Coca-Cola							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Bottled Water	5.0	100%	5.0	100%	5.0	100%	100%
Carbonates	1.2	21%	1.2	21%	1.2	21%	0%
Juice	0.5	0%	0.5	0%	0.5	0%	0%
Total	1.8	35%	1.8	35%	1.8	35%	19%

Table B5 Summary results by category for Darsh

Darsh							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Flour	3.0	0%	3.0	0%	3.0	0%	NA
Sauces, Dips and Condiments	2.3	20%	2.5	20%	2.5	20%	25%
Sweet Spreads	2.3	25%	2.4	25%	2.1	25%	20%
Total	2.4	20%	2.5	20%	2.4	20%	22%

Table B6 Summary results by category for Deepa

Deepa							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Sauces, Dips and Condiments	3.3	50%	3.3	50%	3.3	50%	NA
Savoury Snacks	2.6	11%	2.6	11%	2.6	7%	0%
Total	2.7	14%	2.7	14%	2.7	10%	0%

Table B7 Summary results by category for Flora FG

Flora FG							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Butter and Spreads	3.0	50%	3.0	50%	3.0	50%	0%
Sweet Spreads	2.0	50%	2.5	50%	1.8	0%	0%
Total	2.5	50%	2.8	50%	2.4	25%	0%

Table B8 Summary results by category for Galaxy

Galaxy							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Butter and Spreads	0.5	0%	0.5	0%	0.5	0%	0%
Dairy	4.0	100%	4.9	100%	4.8	100%	14%
Total	3.8	93%	4.6	93%	4.5	93%	13%

Table B9 Summary results by category for IFFCO

IFFCO							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Baked Goods	2.5	0%	3.5	100%	3.5	100%	NA
Confectionery	0.5	0%	0.5	0%	0.5	0%	0%
Edible Oils*	-	-	-	-	-	-	-
Ice Cream	2.4	20%	2.4	20%	2.3	0%	20%
Rice, Pasta and Noodles	4.0	100%	4.0	100%	3.5	100%	100%
Sauces, Dips and Condiments	0.5	0%	0.5	0%	0.5	0%	0%
Sweet Biscuits, Snack Bars and Fruit Snacks	1.0	3%	1.0	3%	1.0	3%	3%
Total	1.2	7%	1.2	9%	1.2	7%	7%

* Note that no nutrition information for Edible Oils was provided by IFFCO and therefore this category was not included in analysis

Table B10 Summary results by category for Kevian

Kevian							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Asian Specialty Drinks	0.5	0%	0.5	0%	0.5	0%	0%
Juice	1.0	0%	1.2	4%	1.2	4%	0%
Total	1.0	0%	1.2	4%	1.2	4%	0%

Table B11 Summary results by category for Kraft Heinz

Kraft Heinz							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Processed Fruit and Vegetables	5.0	100%	5.0	100%	5.0	100%	0%
Sauces, Dips and Condiments	1.7	0%	1.7	0%	1.7	0%	0%
Total	2.1	13%	2.1	13%	2.1	13%	0%

Table B12 Summary results by category for Mars

Mars							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Confectionery	0.6	0%	0.6	0%	0.6	0%	0%
Total	0.6	0%	0.6	0%	0.6	0%	0%

Table B13 Summary results by category for MeTL

MeTL							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Bottled Water	5.0	100%	5.0	100%	5.0	100%	100%
Carbonates	2.5	0%	2.5	0%	2.5	0%	0%
Dairy	0.5	0%	0.5	0%	0.5	0%	100%
Edible Oils*	-	-	-	-	-	-	-
Flour	4.9	100%	4.9	100%	4.4	100%	NA
Sauces, Dips and Condiments	4.0	100%	4.0	100%	4.0	100%	100%
Total	2.8	50%	2.8	50%	2.6	50%	38%

* Note that no nutrition information for Edible Oils was provided by MeTL and therefore this category was not included in analysis

Table B14 Summary results by category for Milkcom

Milkcom							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Bottled Water	5.0	100%	5.0	100%	5.0	100%	100%
Carbonates	0.5	0%	0.5	0%	0.5	0%	0%
Dairy	4.1	94%	4.9	100%	4.9	100%	50%
Ice Cream	2.5	0%	3.0	0%	3.0	0%	0%
Total	3.1	64%	3.6	68%	3.6	68%	36%

Table B15 Summary results by category for Mondelēz

Mondelēz							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Confectionery	0.5	0%	0.5	0%	0.5	0%	0%
Other Hot Drinks	2.3	33%	2.3	33%	2.0	33%	NA
Sweet Biscuits, Snack Bars and Fruit Snacks	0.8	0%	0.8	0%	0.8	0%	0%
Total	0.7	3%	0.7	3%	0.7	3%	0%

Table B16 Summary results by category for Motisun

Motisun							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Carbonates	0.5	0%	0.5	0%	0.5	0%	0%
Juice	0.5	0%	0.5	0%	0.5	0%	0%
Savoury Snacks	1.5	0%	1.5	0%	1.5	0%	0%
Total	0.6	0%	0.6	0%	0.6	0%	0%

Table B17 Summary results by category for Nestlé

Nestlé							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Concentrates	2.0	0%	2.0	0%	2.0	0%	0%
Confectionery	0.5	0%	0.5	0%	0.5	0%	0%
Dairy	2.1	0%	2.9	25%	2.6	25%	50%
Instant Coffee Mixes	1.0	0%	1.0	0%	1.0	0%	0%
Other Hot Drinks	1.3	0%	1.3	0%	1.3	0%	NA
Sauces, Dips and Condiments	3.0	0%	3.0	0%	3.0	0%	6%
Total	0.9	0%	1.0	3%	1.0	3%	6%

Table B18 Summary results by category for PepsiCo

PepsiCo							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Bottled Water	5	100%	5.0	100%	5.0	100%	100%
Carbonates	1.5	33%	1.5	33%	1.5	33%	0%
Juice	0.5	0%	0.5	0%	0.5	0%	0%
Savoury Snacks	1.5	0%	1.5	0%	1.5	0%	0%
Total	1.4	18%	1.4	18%	1.4	18%	2%

Table B19 Summary results by category for Tanga

Tanga							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Butter and Spreads	0.7	0%	0.7	0%	0.7	0%	0%
Dairy	4.1	100%	4.8	100%	4.5	100%	29%
Total	3.1	70%	3.6	70%	3.4	70%	20%

Table B20 Summary results by category for Trufoods

Trufoods								
EMI subset		Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Flour		3.0	0%	3.0	0%	3.0	0%	NA
Other Hot Drinks		NA	NA	NA	NA	NA	NA	0%
Sauces, Dips and Condiments		3.3	40%	3.4	40%	3.4	40%	20%
Sweet Biscuits, Snack Bars and Fruit Snacks		0.6	0%	0.6	0%	0.6	0%	0%
Sweet Spreads		1.8	13%	1.8	13%	1.6	0%	0%
Total		1.4	9%	1.4	9%	1.3	6%	3%

Table B21 Summary results by category for Weetabix

Weetabix							
EMI subset	Mean HSR	%>=3.5 HSR	Mean mHSR+ (with protein)	%>=3.5 mHSR+	Mean mHSR+ (no protein)	%>=3.5 mHSR+ (no protein)	% eligible under WHO
Breakfast Cereals	4.1	86%	4.6	86%	4.2	86%	18%
Total	4.1	86%	4.6	86%	4.2	86%	18%