Consultation to the UK Nutrient Profiling Model 2018 review: Individual responses A-B

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1. Action on Salt, Action on Sugar

Action on Salt

Action on Salt (formerly Consensus Action on Salt & Health, CASH) is an organisation interested in reducing the salt intake of the UK population so as to prevent deaths, and suffering, from heart disease, stroke, kidney disease, osteoporosis, stomach cancer and obesity.

Action on Sugar

Action on Sugar is a group of experts concerned with sugar and obesity and its effects on health. It is working to reach a consensus with the food industry and Government over the harmful effects of a high calorie diet and bring about a reduction in the amount of sugar and fat in processed foods to prevent obesity and type 2 diabetes.

Action on Salt and Action on Sugar campaign to encourage food manufacturers to slowly and gradually remove salt and sugar from their products to improve their nutritional profile, in turn enabling consumers to buy healthier products without having to change their purchasing behaviour. However, until this is done in all products, we must look towards creating an environment that educates and encourages healthier eating behaviours among the public, including consistent and transparent front of pack labelling and restrictions on marketing, promotions and advertising of foods high in fat, salt and sugars (HFSS).

We commend Public Health England's decision to seek views on suggested modifications made to the UK Nutrient Profiling Model to hopefully fall in line with current UK dietary recommendations and welcome the opportunity to provide our views and feed into the consultation.

General Statement

The food and drink we now consume is the biggest cause of premature death and disability in the UK and represents a huge burden on the NHS. Poor diets contribute significantly to the onset of heart disease, stroke, type 2 diabetes and some types of cancer. Diets high in salt, fat and sugar and low in fruit and vegetables account for around 30% of all coronary heart disease, while 5.5% of all cancers in the UK are linked to excess bodyweight. High blood pressure in particular is linked to heart disease, the biggest risk factor for which is a high salt intake.

In addition, the very large amounts of calories from sugar in foods that only give a transient feeling of fullness or satiation not only cause tooth decay but are also responsible for the worldwide obesity and type 2 diabetes pandemic. The latest figures from the National Childhood Measurement Programme show that levels of

childhood obesity have hit a devastating all-time high. More than one in three (34.2%) children aged 10 to 11 have a weight status classified as overweight or obese. Obesity prevalence for children living in the most deprived areas is more than double that of those living in the least deprived areas for both reception and year 6. [1] Children with obesity are over five times more likely to be obese as adults.[2] This increases their risk of developing serious diseases including Type 2 diabetes, cancer, heart and liver disease, plus associated mental health problems. Obesity is putting an enormous and unsustainable strain on the NHS and society.

The impact of HFSS marketing on children

Cigarette advertising has been banned in the UK for many years because it causes cancer and cardiovascular disease, yet HFSS food and drink, which are now a bigger cause of death and disability, can be advertised without strong restrictions to vulnerable children, who have no understanding of the dangers of consuming these products. There is a substantial body of evidence to demonstrate that junk food marketing negatively affects children's health and is associated with:

- The 'normalisation' of junk food consumption[3]
- Increased preference for junk food[4]
- Greater preferences towards advertised products[5,6,7]
- Greater pestering of parents to buy junk food[8]
- Immediate snack food consumption[9]
- Greater intake of junk food and lower intake of healthy food[12] overall[10]
- Increased food intake that is not compensated for by eating less at later eating occasions[11]
- Greater body weight[12]

Our position

Protecting children from exposure to HFSS marketing across all media is one of Action on Salt and Action on Sugar's agreed policy priorities.[13] We support the use of the Nutrient Profiling Model (NPM) as an established and evidence-based tool to identify 'less healthy' food and drink that should have marketing restrictions applied. We will be strongly calling for the final revised NPM (and any subsequent updated versions) to be adopted by the UK advertising regulators.

We note that a decision was taken by PHE, early in the process of updating the NPM, and without consultation, to update the existing model rather than develop a new one from starting principles. There is little information about the rationale for this decision on the consultation documents. As such, we feel there may have been a missed opportunity to fully consider other model structures available worldwide that could provide further protection to children from HFSS advertising. We encourage PHE to commit to a full review of the NPM against international models ahead of any future reviews.

The NPM test data set

We understand that the data set used to test the updated NPM consisted of food and drink consumed at a household level and does not include out of home (OOH) consumption. One fifth of children reportedly eat food from OOH food outlets at least once a week. These meals tend to be associated with not only higher energy intake but also higher levels of salt, fat and sugar.[14] Furthermore, evidence from the Obesity Health Alliance suggests that fast food is the most heavily advertised food and drink category, during the TV programmes most popular with children.[15] We strongly encourage PHE to undertake further testing, using OOH food and drink products to ensure the revised NPM provides adequate protection from fast food adverts.

Specific modifications

Free sugars

We strongly support modifications made to bring the NPM into line with evidence based dietary recommendations on free sugars made by SACN in their Carbohydrates and Health Report[16] in 2016. The latest National Diet and Nutrition Data[17] shows that children of all ages are exceeding the recommendation of free sugars providing no more than 5% of daily total energy intake, with girls aged 11-18 consuming just under three times the recommended daily limit of free sugar.

We strongly support the performance measure that the draft 2018 NPM should allow fewer foods that are high in free sugars to pass the modified NPM. We are pleased to see that during testing, the revised NPM allowed fewer foods and drinks higher in free sugars to pass than the existing model. We are satisfied the revised model allows fewer cereal and yoghurt products to pass, as these are regularly advertised to children. Furthermore, cereals and cereal products represent the largest source of free sugars intake in children aged 1.5-10 years.

Our main concern however is the ability to quantify and police such a change. Currently, free sugar content of a product is not required to be listed on product packaging. This will mean advertising regulators are reliant on manufacturers' own calculation of free sugars content to assess whether a product passes the revised NPM. Consequently, academics and NGO's will struggle to monitor and evaluate existing marketing restrictions. We encourage PHE to develop and make public standard tools that can be used by industry and all interested stakeholders to calculate the free sugars content of food and drink products using information that is available on pack.

We also encourage the Government to explore options on how to communicate free sugars content of foods as part of the commitment made in their Child Obesity Plan[18] to review additional opportunities to go further and ensure we are using the most effective ways to communicate information to families on packaged food labels.

Saturated fat

We support the recommendation to retain the current reference value for saturated fat. We note that this aligns with the 2018 SACN recommendation on saturated fat intake.

Salt

We understand that extending the scale of salt was considered as it was suggested it could be a drive to reduce population salt intakes. However, the expert group considered the approach to be consistent with that for the other nutrients and therefore agreed to keep restrictions in line with food labelling regulations and government population advice for everyone aged over 11. Children should not be exposed to unnecessary high levels of salt, which they are currently receiving courtesy of the food industry. Our concern with this decision therefore is that this profiling model as a whole will not be robust enough to take into consideration the lower salt recommendations for younger children.

Given the overwhelming evidence linking excess salt intake to poor health, namely through raised blood pressure and increased risk of suffering from strokes, heart attacks and heart failure, we feel further restrictions should be made on salt. Salt reduction is by far the most simple and cost effective public health measure to improve health and reduce incidence of cardiovascular disease. Whilst the government have issued a 6g maximum daily recommendation, NICE recommends it be reduced further to 3g,[19] so stricter measures should be explored, particularly when considering children, where dietary habits are laid down early in life.

Fibre

We support the principle of updating the NPM to take into account the revised UK dietary fibre recommendations. We are pleased to see that the modifications were considered to ensure they did not encourage high intake of free sugars while promoting intake of fibre. We note that the changes to the free sugars component of the model were considered to offset the likelihood of products high in fibre and free sugars passing the model.

As neither the salt nor the saturated fat component of the model has changed, we encourage PHE to review the recommended fibre modification to ensure that it does not encourage intake of foods high in salt or saturated fat while promoting intake of fibre. We are particularly concerned that some pre-packaged OOH products such as burgers could be high in fibre as well as salt and/or saturated fat**.**

While we note that children and adults are not meeting daily fibre recommendations, it is our view that they should not be encouraged, via advertising, to increase fibre intake via consumption of highly processed products high in fat and/or salt.

The protein cap component of the model was introduced to safeguard against foods high in fat, salt and/or sugars being classified as 'healthier' due to their high protein content unless the food contained more than 80% fruit, vegetables or nuts. We encourage PHE to consider a similar ‘cap’ for fibre, to ensure food products high in fat/salt and fibre cannot pass the model.

Portion size cap

Whilst not explored in the consultation, we would strongly support the consideration of a portion size cap on foods subject to the nutrition profiling model similar to that for colour coded front of pack labelling. Evidence heard by the Health Select Committee on Childhood Obesity[20], found that the large sizes of HFSS foods are providing excess calories at low cost and contributing to health inequalities where £1 can buy you in excess of 900 kcal at one time. The saturation of takeaway restaurants serving HFSS in large portions at low cost are contributing to the increasing obesogenic environment faced by children in some of the most deprived areas. The addition of a portion size cap would go some way to reduce excessive consumption of these foods by restricting advertising. We recently found that one takeaway meal by Pizza Hut, among other meals from OOH outlets can exceed 1125 kcal.[21]

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2. Advertising Association

Executive Summary

The Advertising Association brings together the whole of the advertising and marketing communications industry, including the advertisers, the agencies and the media owners. Our submission covers:

- The strength of the UK's advertising regulation and its desire to help Government achieve the aim of reduced childhood obesity.

- Our concerns that the proposed model means products which are an important contributor to children's diets would fail the model and therefore be restricted from advertising and marketing activity. In some areas, this even means products included in Government's own recommendations would not be able to be advertised (for example, pure fruit juice which is listed as one of the five a day items but would fail the model).

- Our concern that the model disincentivises reformulation by causing some products which have been reformulated to be under the threshold for the Soft Drinks Industry Levy would fail the proposed model. Industry has invested significant resource and time in achieving the aims of the SDIL and therefore this disincentive seems perverse.

- The model was originally designed to identify products as HFSS in the aim of reducing children's exposure to such products. The new model would bring into scope products with little or no appeal to children such as olive oil, peanut butter, vegetable oil and cheeses.

- Our concern that a number of authorities, such as the UK Government, the Scottish Government, the Mayor of London and the Welsh Government, are developing proposals to restrict advertising and using the Nutrient Profile Model to identify the products they would bring into scope – and would extend beyond advertising. This would be a new use for the model and thus should be subject to a full and separate review and impact assessment. As well as this, we request that the process for redefining the model is concluded before any further proposals are put to consultation.

About the Advertising Association and UK advertising

1. The Advertising Association brings together the whole of the advertising and marketing communications industry, including the advertisers, the agencies and the media owners, along with nearly thirty trade associations representing advertising, media and marketing.

2. The AA also works closely with food and drink manufacturers and the relevant trade associations, such as the Food and Drink Federation (FDF), the British Soft Drinks Association (BSDA) and the British Fruit Juice Association (BFJA). Our submission supports those made by these associations, and the Incorporated Society of British Advertisers (ISBA) response.

3. Every £1 spent on advertising generates £6 to UK GDP and so advertising is a driver of economic growth, generating more than £120bn per year for GDP, and also supports the wider creative industries. Nearly one million jobs in communities right across the country are supported by advertising services. The UK is a world-class hub for advertising, with the latest available figures also showing exports of British ad services reached a record high of £5.8bn in 2016.

4. The current rules for advertising in the UK are among the strictest in the world. Restrictions prevent any advertisement for HFSS products being targeted at children under 16 through any medium, not just children's channels.

5. The rules are comprehensive and apply across all forms of media, whether on TV, online, on the street or on public transport. As children's media consumption habits have changed, so have the rules. In July 2017, the restrictions were extended to cover non-broadcast media, online, social media, advergames and TV-like content such as video-sharing platforms, if directed at children or in media with a significant audience of under 16s (over 25% of the audience).

Application to advertising

6. The Nutrient Profile Model is used to define food and drink products which can be advertised to children across all forms of media. The CAP and BCAP Codes use the current model to identify products as high in fat, salt and sugar (HFSS) and ensure that children are prevented from seeing advertisements for these products in children's media, and in any media where children make up more than 25 per cent of the audience. For broadcast, this also means these products cannot be advertised in or adjacent to programmes commissioned for, principally directed at or likely to appeal to audiences below the age of 16. We have a number of concerns with the proposed model and implications for advertising should it be applied to the advertising codes.

7. We support the responses from the FDF, BSDA and the BFJA which highlight that as dietary impacts beyond sugars and fibre were not considered in the development of the proposed model, there are a number of products which are important contributors to children's diets but would likely fail the new model. These include high fibre breakfast cereals, yogurts, no added sugar fruit juices and smoothies. Importantly, it would restrict the ability of companies to market

these products by placing them in the HFSS category, leading to advertising restrictions under the CAP and BCAP codes.

8. We are concerned that the nature of the discussion around childhood obesity has meant that products which are classified as HFSS under the NPM are described as “junk food”. By extending the categories of products covered by the model and therefore subject to advertising restrictions, this would have the perverse effect – and unintended consequence - of labelling products considered a part of consumer’s five a day as “junk food” (such as pure fruit juice), as well as products which have a rightful place as part of a balanced diet, such as olive oil, vegetable oil, peanut butter, condensed milk, pasta sauces, cheese and pure fruit juice, amongst others.

9. We support the Government and industry aim to ensure that children are proportionately protected from exposure to HFSS advertising. However, we are concerned that the new model would include products which have little or no appeal to children or the advertising of which is predominantly or exclusively aimed at adults. These include butter, oil, cheddar cheese (including half fat versions), Marmite, some pasta sauces, and mayonnaise (including low calorie).

10. We are concerned that the proposed NPM would categorise the intake of fruit and vegetable juice as HFSS which would contradict Government’s own advice using PHE’s Eatwell Guide, and undermine their inclusion in a consumers’ five-a-day, and prevent the advertising of these products to consumers, despite their clear health benefits.

11. Similarly, the proposed model would restrict the advertising of high fibre breakfast cereals which contribute a small percentage of total free sugars to children’s diets. As referenced by the FDF, these cereals also often provide a wide range of much needed micronutrients in the younger generation. Therefore, we share the FDF’s concern that limiting the ability of companies to advertise these products would not only seem disproportionately strict and limit companies’ ability to move consumers from high sugar, lower fibre to lower sugar, higher fibre products, but would also have a negative effect on children’s micronutrient intake.

12. The practicality of the model is of the utmost importance to achieving its aim, to define which foods and drinks can be advertised in children’s media. Proof of passing the NPM is a fundamental part of the advertising codes and therefore we share the FDF’s concerns over the free sugars criterion and the challenges faced in estimating free sugars to prove that products pass the NPM.

13. Industry, for example, carbonated soft drinks, took action to meet the Government’s own lower sugar threshold of 5g/100 ml as per the Soft Drinks Industry Levy. Therefore, it could be argued that the model has the perverse

impact of disincentivising reformulation by making it harder for companies to advertise their reformulated products, and as a consequence the practicality of the model should be questioned.

Advertising and wider Government objectives

14. We are also concerned that although the model is primarily used for advertising, the impact on wider Government objectives should be considered. As mentioned above, by defining 100% fruit and vegetable juices and smoothies as HFSS, companies would face advertising restrictions for a product consumed in small amounts and which plays a valuable role in helping consumers achieve their 5 a day recommendation. The proposed model would also restrict the advertising of most high fibre cereals which often provide a wide range of micronutrients in the younger generation and instead allow only a small number of high fibre breakfast cereals to be advertised, which are often not fortified and could lead to a fall in children's micronutrient intake.

15. As discussed by both the BSDA and the FDF, the 5% sugar reduction guideline for fruit and vegetable juice and juice drinks (with the exception of 100% single fruit juices), which has only recently been set and will require significant investment from industry, will also be impacted by the adoption of the new model. Given that these sugars are naturally occurring, the only mechanism open to manufacturers is to encourage people to buy lower sugars brands, to encourage smaller portion size consumption or the small scope for changing fruit blends – limiting the opportunities available to companies to advertise smaller sizes/ portions by categorising fruit and vegetable juice as HFSS will seriously impede these efforts.

16. In fact, as discussed by the FDF, it could be argued that the free sugars criterion is so strict that it provides no reformulation incentive. Modelling by their members has shown that even products with 20% reduction would fail the new model.

17. Under the new model, none of the drinks deemed low sugar (under 5g sugars/100ml) in the Government's Soft Drinks Industry Levy would be able to be advertised. We share the BSDA's concern that as a result of this and other Government measures, soft drinks companies could be faced with complying with multiple standards and different definitions and understandings around what products are "high" and "low" sugar.

18. A further demonstration of the seeming mismatch between the model and Government's healthy eating advice is the fact that some of the products that are recommended in the recent sugar swaps Change 4 Life programme would be classed as HFSS under the new model. For example, plain bagels, fruit teacakes,

malt loaf and lower fat lower sugar fromage frais are widely accepted within Change 4 Life as healthy alternatives, but would all fail the new NP model.

Current discussions on further advertising restrictions

19. The UK Government, Scottish Government, the Mayor of London and the Welsh Government are all either consulting on – or believed to be considering - new proposals which relate to the restriction of advertising of HFSS products. As these proposals seem to use the current NP model as their foundation, and would seem to disproportionately impact the ability of companies to advertise to their adult audiences, it provides another challenge for companies should the new model be adopted and used for these proposed further restrictions. We request that PHE ensures that the process of finalising the new NP model is concluded before any further proposed restrictions on advertising are put for consultation.

20. There are also a number of proposals which would apply the NP model to packaging and promotions, which would extend it from the current focus solely on the advertising of such products. We request that PHE make clear the model is for advertising only, and any extension to other uses should be put to a separate full impact assessment and review.

Wider uncertainty

21. Companies in the food and drink sector are already facing a number of challenges specific to its sector, including reformulation, the SDIL, a potential packaging tax, and a DRS scheme for bottles, as well as unresolved issues regarding the supply chain and talent in the sector as part of the Brexit negotiations. Further disproportionate restrictions on companies' abilities to advertise and market their products would be an addition to the challenging environment the sector is operating in and reduce its competitiveness.

3. AIJN European Fruit Juice Association

Public Health England Consultation on the UK Nutrient Profiling Model 2018 review. AIJN submission (14 June 2018)

AIJN the European Fruit Juice Association is the representative association of the fruit juice industry in the EU. It represents the industry from the fruit processors to the packers of the final products.

AIJN Remit to this consultation:

We are responding to this consultation in our capacity to represent the European Fruit Juice Association. This implies that we are solely - in this response – representing 100% pure Fruit (as defined by Directive 2001/112/EC last amended by Dir. 2012/12/EU)) and therefore NOT any manner of drinks sweetened with fruit juices or any other sugar or sweetening agent, as by law Fruit Juices are not allowed to add, replace or reformulate their original composition.

Comments on this consultation:

1. The proposed "Nutrient Profiling" reduces 100% pure Fruit Juices to a source of sugar, which is unfair as it is high in nutrients that are not considered by the model (micro- and phyto-nutrients, soluble and/or fermentable fibres).
2. Fruit Juices are NOT just "sweetened water", as exemplified by most recent research comparing fruit juices with colas.[1] Further recent research moreover indicates how fruit juices are a marker for different behaviours from sugar sweetened beverages.[2]
3. The purpose of the model is to nudge children's dietary patterns towards healthier choices by restricting what can be advertised. However, FJ is part of healthy eating advice in the UK (one portion within the Eatwell Guide) and counts as a portion of fruit. By classifying FJ in the HFSS category, it directly counteracts previous Government advice and will be misleading to the public.
4. There is no evidence that 100% pure Fruit Juices pose a risk to public health. It was not found to relate to obesity or chronic disease according to SACN's carbohydrates report:
    a. Moreover, it has not been associated with type 2 diabetes risk, nor a risk of adversely affecting glycaemic control according to two recent meta-analyses.[3]
    b. In controlled studies in adults, 100% pure Fruit Juice has been shown to possess anti-inflammatory and cholesterol modifying effects (see reference 1).
    c. In acute studies, 100% pure Fruit Juice appears to demonstrate positive effects in terms of glycaemic control (see reference 1).
    d. A few observational studies have associated FJ with weight gain, but most of them did not separate FJ from sugar-containing fruit drinks (as exemplified for instance under point 5).
    e. There is no evidence that regular moderate consumption of 100% pure Fruit Juice is harmful to dental health, anymore than consumption of fruits.[4]

[1] 2018 FJ Comparison with SSB Dossier

[2] References Scandinavia & NHANES

[3] 2018 FJ Metabolic Health Dossier

[4] [4] Al Issa et al. Comparison of the effect of whole and juiced fruits and vegetables on enamel demineralisation in situ. *Caries Res (2011) 45: 448 - 452*

5. Finally, quite reputable scientists, when questioned specifically about their peer-reviewed publications, admit that they did not have the "disentangled" data for pure fruit juices, and therefore "lumped" all manner of things together into one category (including nectars, fruit drinks, cordials and in some instances even ciders).[5]

   We therefore ask, in view of the above logic and evidence, that 100% pure Fruit Juices be exempted from the updated nutrient profiling model

[5] SUN research example

4. Association for Nutrition

Consultation Comments

The Association for Nutrition congratulates PHE, and in particular the Registered Nutritionists within the team and Expert and Reference Groups, on undertaking this timely review of the methodology and criteria for setting the Nutrient Profiling Model (NPM), so as to ensure it is consistent with current UK dietary recommendations and consistent with the promotion of population health messages.

We agree that the proposed NPM will result in a substantial impact on the number of product's that 'pass' the model compared to the previous UK NPM 2004/5, when this is in future used for the restriction of advertising of food and drink products. We also acknowledge that Registrants have highlighted that the NPM is likely in future to also be applied by others to wider contexts such as in the determining of promotion portfolios, product stock ranges etc. Therefore we support that the model must be consistent with the evidence and messaging of UK dietary recommendations.

For companies assessing their products compliance with the NPM, this requires a significant degree of technical knowledge. For example in regards to the calculation of free sugars in vegetable based products, separation is required of free and intrinsic sugars in products containing a combination of intact and pureed/blended vegetables and in dairy products calculations are required to separate lactose and added sugars in flavoured products. Registered Nutritionists are ideally qualified professionals to be able to aid companies with this technical support.

Feedback received from Registrants was to request that more detailed technical clarity is provided on the point at which fruit/vegetables are regarded as moving from being intact to free sugars, as for example in vegetable sauces these may contain vegetables which are coarsely grated or finely diced etc. It was recommended that a technical annex is provided with specification detail for example of grate size. Now that the definitions for free sugars and fibre have been published, it would also be helpful for implementation of the model for a technical annex to contain definitive detailed advice on the free sugars calculation and where fruit and vegetable content can and cannot count towards C points, as with the increased popularity of products targeted towards children now containing processed fruits in various forms (freeze dried, concentrates, dehydrated etc.) there can be processed fruit products aimed at children with very high sugars contents, but which are offset by fibre points and clarity in this area is required. Therefore a technical annex on these two issues would ensure all Registered Nutritionists, and others, providing information in or to the food industry or regulatory context will provide the same advice/calculations in regards to the sugars content, and therefore remove any ambiguity, potential for unintended consequences of misinterpretation or debate as to whether for example

the tomatoes or pepper in a sauce should have been calculated as intrinsic or free sugars.

Submitting organisation

The Association for Nutrition (AfN) is the independent regulator for Registered Nutritionists. Our role is to protect and benefit the public. We hold the UK Voluntary Register of Nutritionists, the register of competent, qualified nutrition professionals who meet our rigorously applied standards for scientifically sound evidence-based nutrition and its use in practice.

For more information please visit: www.associationfornutrition.org

5. British Dietetic Association

The overall BDA position

The BDA supports the use of the UK NPM as an established and evidence-based tool to identify high fat, sugar and salt (HFSS) food and drink. The BDA believes that these HFSS foods and drinks identified using the UK NPM should be subject to marketing restrictions.

We support the principle that the NPM should align with current UK dietary guidance, and therefore be regularly reviewed and updated. We will be strongly calling for the final revised NPM (and any subsequent updated versions) to be adopted by the UK advertising regulators.

The BDA supports the Obesity Health Alliance (OHA) response to this consultation. Here we are reiterating the main points made by the OHA and have a few additional points to make:

1. We strongly encourage PHE to undertake further testing, using 'Out of Home' (OOH) food and drink products to ensure the revised NPM provides adequate protection from fast food adverts.
2. Currently, free sugar content of a product is not required to be listed on product packaging. We encourage PHE to either develop and make public, standardised tools that can be used by industry and all interested stakeholders to calculate free sugar content of food and drink products using information that is available on pack OR make 'free sugars' one of the items that must be declared on the front of pack/product labelling.
3. We ask PHE to cross check (for consistency and alignment of message) the foods and drinks that are identified as HFSS when using the final new NPM with the other PHE initiatives e.g. Change for Life, the sugar reduction programme and similar programmes in the devolved nations
4. We urge PHE to consider some of the 'unintended consequences' of the proposed UK NPM:
    a. For products such as yoghurt for children and high fibre breakfast cereals which are now more likely to be identified as HFSS using the proposed NPM, manufacturers are likely to need to reformulate and may choose to use more sweeteners in their recipes. We urge PHE to consider safe intake levels of sweeteners and take action to ensure that typical children's diets are assessed to ensure intake does not exceed the safe intake levels.
    b. Much of PHE's current activity is to reduce childhood obesity (with which the BDA wholly agree), but many foods such as nutrient dense yoghurts aimed at children and high fibre, fortified breakfast cereals do

not pass the proposed NPM. The unintended consequence of this could be that we replace obesity as a population problem with poor bone health and gastrointestinal disorders – or that we have all three problems concurrently. The ideal would be for manufacturers to produce lower sugar varieties of yoghurts and high fibre breakfast cereals so that these products pass the NPM. However, if this not be technically possible the BDA ask PHE to look again at the NPM with an aim of making the NPM less impactful on these foods.

c. Public perception. The proposed NPM identifies many yoghurts as being HFSS alongside biscuits and cakes – the public may therefore perceive yoghurts as being 'junk food' – in the same way that they may see cakes and biscuits as 'junk food'. However, yoghurts are nutritionally superior and should be regarded as a suitable occasional snack or dessert for children. For this reason, the BDA ask PHE to look again at the NPM with an aim of making the NPM less impactful on these foods.

6. British Dietetic Association – Obesity Group

We welcome the opportunity to respond to this consultation on the proposed draft 2018 NPM, developed in response to the commitment made in the Childhood Obesity Plan (2016) and to reflect changes to dietary recommendations made since the initial launch of the NPM in 2004/5. Changes to nutritional recommendations include guidance to increase fibre intakes and limit intakes of free sugars to no more than 5% total energy intake.

The proposed draft NPM is clearly described. Both the assumptions made and the methodology used to develop the draft are clearly described in detail. We agree with the PHE proposal to use the current NPM 2004/5 as the basis for amendment, rather than starting from first principles again. This is pragmatic but also aligns with the 2009 findings from the FSA that the NPM 2004/5 was fit for purpose, and with the CAP consultation findings in 2016 that NPM 2004/5 be adopted as the best model to identify foods and drinks high in fat, salt and sugar for advertising restriction purposes.

We also agree with the PHE proposal as the NPM 2018 the model that identified the highest number of foods and drinks for exclusion, as a more stringent approach is likely to have a greater protective effect on children in terms of foods and drinks suitable for advertising and marketing to them. NPM 2018 as proposed appears to identify more foods and drinks which are high in both free and total sugars, and has a small impact on foods and drinks high in saturated fat (excluding slightly more compared with the NPM 2004/5). While fewer ‘high in fibre’ or ‘source of fibre’ foods passed the draft NPM 2018 compared with the NPM 2004/5, this reflects the proportionately greater change in recommendations to reduce intake of total and free sugars, compared with those to increase fibre intake.

We agree with the proposals to base the NPM 2018 upon the new guidance for free sugars and increased fibre intake. We also agree with the proposal to move from sodium to salt content in line with UK recommendations, and to use 2000kcals/day as a baseline again in line with UK dietary recommendations. These pragmatic changes align NPM 2018 much more closely with current UK dietary recommendations as well as the specific changes to nutrient recommendations for free sugars and fibre made since the original NPM 2004/5. The fact that the draft NPM 2018, based as it is on these changes, is better able to identify foods and drinks high in total and free sugars for exclusion, and slightly better at identifying foods and drinks high in saturated fat compared with NPM 2004/5, suggests that it is a more sensitive tool for identifying foods and drinks which should be restricted to children. We hope that as such, children will be better protected against marketing and advertising practices which promote intakes of relatively nutritionally dilute foods and drinks. This has the potential to impact upon childhood obesity prevalence but

also upon prevalence of other non-communicable diseases, and overall nutritional intakes of children and young people in the UK.

7. British Fruit Juice Association

About us

The British Fruit Juice Association (BFJA) is a trade organisation with a long and established history. It was founded by the erstwhile Ministry of Food in 1941 to ensure adequate supplies of high quality fruit juices. This was a response to government concerns about an insufficient supply of citrus fruit.

The organisation has evolved considerably. It now consists of juice importers, contract packers, transport and storage professionals, blenders, fruit and vegetable processors, category managers, new product developers, distributors and juice creators. We represent businesses working in the juice industry that are both large, small and anything in-between including a number of start-ups.

The BFJA provides a focal point for knowledge-sharing, networking, up-skilling and resource-sharing amongst businesses working in the juice industry.

We have approximately 60 members and work closely with our sister organisations, the British Soft Drinks Association (BSDA) and the European Fruit Juice Association (AIJN). We are also a member of the International Fruit and Vegetable Juice Association (IFU).

Our response

We attach the detailed response from the British Soft Drinks Association pertaining to fruit and vegetable juice. Our sole focus as an Association for the purposes of the consultation response is 100% pure fruit and vegetable juices and smoothies.

We completely endorse the content of our sister organisation, the BSDA's, response.

Additional points specific to 100% fruit and vegetable juice and smoothies

We would like to see a complete exemption for 100% fruit and vegetable juices and smoothies under the proposed nutrient profiling model.

The classification of fruit and vegetable juices as HFSS will almost certainly reduce the nation's ability to reach the five-a-day goal further. This will reduce fibre and other micronutrient intake, which may well lead to other unintended consequences on the nation's health.

In categorising fruit and vegetable juice as HFSS, whilst rightly advising that 150ml of these products should be consumed as 1 of 5 a day, Government risks confusing consumers with mixed messaging. We strongly endorse the 150ml portion size and will continue to support PHE on portion size.

Moreover, Government risks further reducing the already low average intake of fruit and vegetables, despite the nutritional benefits pertaining to these natural products. Micro nutrients present in fruit juice and smoothies are not weighted in the proposed model, with only protein used as a marker for calcium and iron.

UK advertising regulation is some of the strictest in the world. In addition to the risk of mixed messages, it is simply wrong to classify 100% pure fruit and vegetable juices and smoothies as “junk food” which is what the proposals risk.

As a final point, we would be pleased to continue to work with PHE on their goals to make the nation healthier, fitter and stronger. We strongly believe the alternative approach, outlined in the BSDA’s response, will achieve this. It will not compromise the health of the nation or further confuse the public.

8. British Retail Consortium

Retail is an exciting, diverse and dynamic industry undergoing transformational change. The BRC is at the forefront – enhancing, assisting, informing, and shaping. Our broad range of stakeholders demonstrates how retailing touches almost every aspect of our culture. The BRC leads the industry and works with our members to tell the story of retail, shape debates and influence issues and opportunities which will help make that positive difference. We care about the careers of people who work in our industry, the communities retail touches and competitiveness as a fundamental principle of the industry's success – our 3 Cs.

Thank you for giving us the opportunity to submit a response to the consultation on the 2018 review of the UK Nutrient Profiling Model.

Advertising is a key activity for retailers, and while our members do not advertise to children or at children viewing times, the potential forthcoming changes in the restrictions on advertising times, make having a final reviewed model which is sensible and practical very important.

KEY POINTS

- Free sugar must be replaced with total sugar
- Further modelling is required for fibre
- The protein cap should be reviewed
- Existing dietary guidelines line the Eatwell guide must be used as a performance measure
- Coherence with other Government strategies is important

FREE SUGAR vs. TOTAL SUGAR

We understand the main aim of the review was to update the model to reflect the SACN new dietary recommendations covered in their carbohydrates report. Their sugar recommendation related to free sugar and therefore we support all the modelling done by PHE during the review process, to establish how to reflect the recommendation, to be done using free sugars. However, we are concerned about the practicalities of including 'free sugars' as one of the elements in the equation that industry and regulators have to use to establish whether a product can be advertised.

The recently published definition for free has provided some clarity, although it remains unclear whether processes that result in a partially broken-down cell structure, are covered by the definition of free sugar or not. Nevertheless, there is no methodology to calculate free sugar. This is reflected in the modelling undertaken, all

of which was done using informed assumptions. Assumptions are acceptable for the calculation of general trends and modelling but not to establish specific product scores. Retailers will find it hard to have to establish the free sugar content of each of their products; and this will be even harder for small businesses. Using an assumption versus using the real free sugar value could make the difference between whether a product can be advertised or not.

We believe it is crucial that a correlation is established between free sugar and total sugar, so the outcomes reflect the SACN recommendation but the equation only includes elements for which companies have data available.

BRC was part of the reference group for this project. PHE started looking into a potential correlation. We strongly believe this should be further explored.

Not replacing free sugars with total sugars will also be a problem for regulators. Clearcast will not be capable of establishing if a value submitted by a business is indeed accurate. This would be further complicated if that value is substantially different from the value one would obtain after going through the suggested PHE diagram, an assumption or any future guidelines.

FIBRE

The new proposed model focuses very heavily on the new dietary guidelines for sugar; however not enough consideration has been given to fibre. Several variations have been modelled for fibre but we believe further options should be considered and modelled, before a final decision is taken. One clear omission is the option where the maximum scoring points for fibre are increased to 10, together with the increase to 10 of the maximum scoring points for fruit and vegetables. This may allow the advertising of a few more high fibre breakfast cereals and some lower sugar variants of fruit juices. Breakfast cereals are a key source of fibre in the diet, as well as a good source of micronutrients, especially the fortified varieties, the vast majority of which are HFSS according to the proposed model. Fruit juices are another good way of getting children to consume their vitamins and minerals through one of their five a day. Wider dietary impacts should be considered.

PROTEIN CAP

This was the first time a comprehensive review of the original advertising model, developed in 2004-5, was undertaken. The protein cap has been the subject of some discussion for years. Some countries who have used the original UK model as the bases to develop their national models, have removed the cap. In 2007, the independent review model group recommended its removal due to its impact being minimum compare to the complexity it added to the calculations. SACN expressed concerns and advised the impact would be monitored if the cap was removed. In 2009 the FSA board advised Minister to maintain the protein cap. We believe PHE and the expert group should not just have accepted the decision taken by FSA at the

time, and should have properly review the impact of removing the protein cap. This is especially important due to the role of protein and dairy in children's diets. This review should be undertaken before the final model is agreed.

DIETARY GUIDELINES

A number of the peer reviewers suggest that a comparison of the proposed model outcomes with the recommended foods for children consumption, in guidelines such as the Eatwell guide, is used as a key performance measure of the model. This is an important comment. The expectation should be that a reasonable proportion of foods in key categories pass the model, e.g. dairy products to inform the consumption of recommended three portions a day.

REFORMULATION

The current model is strict and does not encourage reformulation; the nutrient reduction required to change the classification of most foods from HFSS to non-HFSS is unfeasible. Consistency across Government strategies is important. Retailers have committed to support the Government's ambition to reduce the sugar and calories consumed in the UK. This commitment requires financial investment and resource. Despite these efforts, retailers will not be able to advertise most products even when a reduction of 20% of the sales weighted average has been achieved in the category or a soft drink has been reformulated bellow the 5g/100ml cut off for the soft drink levy. The outcomes of Government strategies should be feasible to achieve and more closely aligned.

Thank you for offering us the opportunity to comment. Please do not hesitate to contact us if you want to discuss anything further.

9. British Soft Drinks Association

Executive Summary

The soft drinks industry is keen to continue the good work that it has led on in the food and drinks sector. We understand the rationale for reviewing the Nutrient Profile Model (NPM). At the same time, we are concerned that the proposed NPM would (1) confuse current Government advice on health and nutrition in relation to fruit and vegetable juice with a concomitant risk to public health and (2) undermine promotion of soft drinks products that have been reformulated over past years to reduce sugar. The NPM is widely used for purposes beyond advertising restrictions, including by retailers and charities, and therefore the unintended consequences of the proposed revisions are far reaching.

We are therefore calling on PHE to revisit these proposals urgently.

Our response centres on our concerns about the negative consequences of a high in fat, salt or sugar (HFSS) reclassification for fruit and vegetable juice, and a sugar threshold which means many soft drinks reformulated as Government intended, will be defined as HFSS.

- Fruit and Vegetable Juice:
  In recategorising fruit and vegetable juice as HFSS, Government risks confusing consumers with differing messaging. Moreover Government risks further reducing the already low average intake of fruit and vegetables, despite the nutritional benefits pertaining to these natural products. Micronutrients present in fruit juice and smoothies are not weighted in the proposed model, whereas protein is used as a marker for calcium and iron in dairy products.
- Soft drinks:
  Soft drinks that have been reformulated will be unfairly categorised as HFSS, thus diminishing opportunities to promote the healthier alternatives Government policy was intended to encourage.

We are calling on PHE to:

- **Exempt fruit and vegetable juice from the model; or rebalance the points system to allow for a maximum of 10 points to be awarded for fruit and vegetables and fibre, both of which smoothies and one of which fruit and vegetable juice delivers on**
- **Revisit the model to ensure that reformulated drinks are not categorised as HFSS, and can be promoted as Government policy was intended to encourage.**

Introduction

The British Soft Drinks Association (BSDA) represents the interests of producers and manufacturers of soft drinks including carbonated, still and dilutable drinks, fruit juices and bottled water. BSDA members are responsible for the majority of soft drink products on the UK market, a market with annual sales volumes of over 13.5 billion litres, with fruit juice and juice drinks representing 12% of this volume.

As a result of our sector's efforts, sugar and calorie intake from soft drinks is down by 18.7% and 16.8% respectively since 2013 (well on target to hit the voluntary commitment to reduce sugar by 20% by 2020). Soft drink categories have contributed to reducing sugar intake, most notably carbonates (a reduction of 19%), dilutables (a reduction of 23.6%), and still and juice drinks (a reduction of 26%) since 2013. In addition to this, sales of bottled water have continued to rise (9.6% in 2016).[1] Our membership also includes producers of retailer own brand soft drinks – and successes that retailers have publically reported in calorie reduction through reformulation are due to work undertaken by our membership.

CHILD & ADOLESCENT SUGAR INTAKE

It should be noted that according to government figures, sugar intake by children aged 4 – 10 years from soft drinks, including fruit juice, has declined by 15% since 2012, and sugar intake by adolescents aged 11 – 18 years from soft drinks, including fruit juice, has declined by 11% since 2012.[1]

In addition to the voluntary sugar and calorie reduction programmes referred to above, the soft drinks industry has pragmatically taken action to address many challenges, including:

- new product development, with more zero and no calorie options available
- widening the availability of smaller pack sizes
- increasing advertising spend on low and no calorie drinks
- voluntarily agreeing not to advertise HFSS soft drinks to children under 16 – a year ahead of the CAP code revision

The sector is also dealing with a number of other policy issues which may have a serious financial impact on businesses, including:

- consultation on a proposed plastics tax and PRN reform
- potential ban of particular plastics (eg straws)
- consultation on a DRS system (potentially separately in Scotland/ England/ Wales)
- 5% sugar reduction guidelines for fruit and vegetable juice and juice drinks (with the exception of 100% single fruit juices); given that these sugars are naturally occurring, the only mechanism open to manufacturers is to

[1] NDNS Years 7 and 8 (combined)

encourage smaller portion size consumption or small scope for changing fruit blends – limiting the opportunities available to companies to promote smaller sizes/ portions by categorising fruit and vegetable juice as HFSS will seriously impede these efforts

- Brexit - with most ingredients for fruit juice being imported, Brexit will put further pressure on the sector, with uncertainty around changes to tariffs and border controls.

The soft drinks industry is keen to continue the good work that it has led on in the food and drinks sector, and asks that government policies be holistic and evidence based.

Fruit and Vegetable Juice

It is widely accepted that fruit and vegetable juice can play a positive role in a healthy and balanced diet, and is a convenient way of consuming 1 of your 5 a day. The scope for this review is to ensure it reflects the current UK dietary recommendations; these guidelines include 150ml of fruit or vegetable juice a day as a contribution to 1 of your 5 a day. This equates to only 62 kcal, or around 3% of daily energy based on a 2,000 kcal diet.[2] In addition, a 150ml glass of pure orange juice delivers 60% of the daily vitamin C recommended intake as well as other important micro nutrients such as folate and potassium. Intake of some of these micronutrients and fibre are of concern in a substantial proportion of children in the UK (expanded below in *nutritional summary* ANNEX 2).

We welcome PHE's commitment to the Eatwell Guide, confirmation that this would not be revised, and continued recognition of fruit and vegetable juice contributing to 1 of your 5 a day[3]. It should be noted that during the modelling for the Eatwell Guide by PHE and BNF, 150ml of fruit or vegetable juice was included as part of a healthy balanced diet, which contributed to no more than 5% of energy as free sugars in the diet. The BNF modelled a week of food which met the new guidelines for free sugars and fibre, with five of the seven days including 150ml of fruit juice. We are concerned that the proposed NPM would categorise the intake of fruit and vegetable juice as HFSS, which would be at odds with the government's own advice via the Eatwell Guide which at the same time promotes the products as 1 of your 5 a day.

[2] Lewis HB et al. *(2012)* How much should I eat? A comparison of suggested portion sizes in the UK. *Public Health Nutrition* 15: 2110-7.

[3] Category specific meeting for juice based drinks – revised slides (Alison Tedstone – Nov 17 – page 3)

SUGAR IN FRUIT JUICE VERSUS WHOLE FRUIT

In the Eatwell Guide, fruit and vegetable juice are portrayed separate to foods high in fat, salt and sugars, and this distinction should be reflected in the proposed model. Fruit and vegetable juice only contribute to 2% of energy intake for children aged 4-10 and 11-18. This is half of the energy intake 4-10 year olds receive from whole fruits, and the same percentage (ie 2%) for 11-18 year olds.

[4]The review states that children are consuming "*too little fibre, oily fish and fruit*"; in addition, people from lower socio economic groups tend to have poorer diets, with the differences most marked in the intake of fruit and vegetables. The proposal to categorise fruit and vegetable juice as HFSS is out of step with the findings of PHE,[5] that the population is not eating enough fruit and vegetables, and runs counter to the Department of Health advice that fruit juice counts as one of your 5 a day.

- In 2016, only 16% of children aged 5 to 15 were consuming the recommended 5 portions of fruit and vegetables a day, and over half of boys (54%), and 49% of girls consumed fewer than 3 portions a day[6]
- A quarter of children's fruit and vegetable intake is from fruit and vegetable juice[7]
- The most recently published NHS figures state that only 8% of 11-18 year olds are meeting the 5 a day recommendation.[8]

TEEN CONSUMPTION OF FRUIT JUICE

Teenagers who consume fruit juice are twice as likely to achieve their 5 a day as non consumers (11% vs 5%).

[9]In light of these points, together with the latest NDNS data indicating that both the percentage of children achieving 5 a day and fruit juice consumption is decreasing (already well below the 150ml recommendation at 62g/day for children aged 4 – 10 and 64g/day for children aged 11 – 18[10]) it would seem counter intuitive to implement any policy that may further decrease children's consumption of fruit and vegetables, particularly when there is no evidence that fruit and vegetable juice is being over consumed by children.

[4] NDNS Years 7 and 8 (combined)
[5] PHE 'Calorie reduction: The scope and ambition for action'
[6] https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-obesity-physical-activity-and-diet/statistics-on-obesity-physical-activity-and-diet-england-2018
[7] NDNS Years 7 and 8 (combined)
[8] NDNS Years 7 and 8 (combined)
[9] Gibson and Frances, 2017
[10] NDNS Years 7 and 8 (combined)

The fruit juice industry has invested significantly in promoting PHE's 150ml messaging – from on-pack through to TV and billboard advertising. An HFSS classification would create consumer confusion, mixed messaging, and undo the public facing work industry has undertaken to actively promote PHE's own guidance.

CASE STUDY – Tropicana little glass campaign

Tropicana recognised that there was a lot of misconception about the nutritional benefits of juice amidst a very one sided sugar debate, and invested millions in a major advertising campaign. Entitled "Little Glass", the campaign was designed to educate on how a small glass (150ml portion) is one of your 5 a day, giving consumers 60% of their recommended daily amount of vitamin C. The campaign ran across TV, national print and digital channels and was aimed at helping consumers to understand juice portion sizes better.

Helen Bond, Dietician, noted *"I love Tropicana's new 'Little Glass' campaign and the TV advert, bringing the 'glass size' to life (the recommended 150ml contribution) and highlighting the nutritional and health contribution of orange juice in a fun and educational way. Hopefully it will be well received by health professionals and consumers alike, and will go a long way in helping to dispel some of the myths regarding fruit juice - often misreported in the press over the past year."*

Smoothies made with whole crushed fruit contribute to fibre intake and both smoothies and fruit and vegetable juice provide 1 of your 5 a day; and contain a range of minerals, vitamins and bioactive compounds, such as phytochemicals, that are increasingly recognised as important for good health. Guidelines for a healthy, balanced diet typically recommend consumption of plenty of fruits and vegetables to supply our vitamin and mineral needs. And, within these guidelines, moderate consumption of 100% juices and smoothies can make a significant contribution to intake of potassium and other important micronutrients. Intake of some of these essential micronutrients is of concern in a substantial proportion of children in the UK (expanded below in *nutritional summary* ANNEX 2).

In terms of the proposed model, in order for 100% fruit and vegetable juice to NOT be considered HFSS, a reformulated recipe would need to be developed, which extracts 100% fruit juice content and replaces it with ingredients including sweeteners and/ or the addition of artificial fibres. The product would no longer be considered or labelled as a "fruit juice". It is worth noting at this point that European Law does not permit the natural sugar content of 100% juices to be artificially increased or reduced.

In addition to the low proportion of children meeting 5 a day, the percentage of children meeting the AOAC fibre recommendation is only 10% of those aged 1.5-10 years and just 4% of those aged 11-18[11] years, and so sources of fibre such as smoothies being unfairly categorised as HFSS is confusing and may result in even fewer children achieving their recommended fibre intake. It should further be noted that in terms of the proposed model, it would not be possible to create a fruit or vegetable juice to meet the fibre targets unless a maximum of ten points can be awarded to offset the natural sugar content.

CASE STUDY – Innocent Smoothies

These products are an excellent source of fibre, with the Mango and Passionfruit flavour containing 2.1g per the recommended 150ml serving. With children nowhere close to achieving the recommended fibre intake, branding any nutritious, natural product that serves to supplement fibre intake, as HFSS, will be a confusing message for consumers.

Fruit and vegetable juice play a positive role in the nutrition of children, and by designing the whole model to focus on fibre and free sugars, the potential wider impacts of these proposals has not been fully considered.

We believe that the potential for harm by not continuing to encourage moderate consumption of fruit and vegetable juice and smoothies has not been adequately considered in the proposed model; and further, that consideration should be given to weighting micronutrients present in fruit and vegetable juice and smoothies. There was valid reasoning around exempting fruit juice from the SDIL and why a 150ml glass is included in the Government's Eatwell guidelines; the nutrient profile model should be a further reflection of these policies. In the proposal, most fruit and vegetable juices would pass modification 2. The increase in points by including sugars occurring naturally occurring in fruit and vegetable juice is not offset by increased scoring for fibre or the micronutrients included in fruit and vegetable juice.

RECOMMENDATION

That fruit and vegetable juice be exempted from the model; or the points system rebalanced to allow for a maximum of 10 points to be awarded for fruit and vegetables and fibre, both of which smoothies and one of which fruit and vegetable juice delivers on. An exclusion for fruit and vegetable juice would enable all the benefits of the model to be retained without the unintended consequences of children getting less fruit, vegetables and fibre in their diets.

[11] NDNS Years 7 and 8 Combined

Soft drinks

The soft drinks sector has led the way in reformulation and advertising, with 58% of all soft drinks now sold in the UK being low or no calorie[12]despite soft drinks only accounting for 3% of the average daily calorie intake of children[13]. The soft drinks sector had proactively taken action on many issues subsequently raised in the Childhood Obesity Plan, including:

- new product development, more zero and no calorie options
- reformulation of existing recipes
- widening the availability of smaller pack sizes
- increasing advertising spend on low and no calorie drinks
- voluntarily agreeing not to advertise HFSS soft drinks to children under 16 – a year ahead of the CAP code revision

In 2015 we became the only category to set a voluntary calorie reduction target of 20% by 2020. This was well before the Childhood Obesity Plan was published In August 2016. The principle policy proposal was a tax on sugar sweetened beverages despite the following progress made by the industry:

- 46% reduction in regular, 'full sugar' soft drinks sales between 2005 and 2015[14]
- sugar intake from soft drinks fell in all age groups; down 28% in children, 22% in teens, and 13% in adults between 2008 and 2016[15]
- low and no calorie soft drinks outselling regular soft drinks, representing 58% of the market

Importantly for this consultation, it should further be noted that according to government figures, sugar intake by 4 – 10 years from soft drinks (including fruit juice) has declined by 15% since 2012, and sugar intake by 11 – 18 years from soft drinks (including fruit juice) has declined by 11% since 2012.[16]

[12] Global Data 2016
[13] NDNS Combined Years 7 and 8
[14] Family Food Survey 2016 – Defra data
[15] National Diet and Nutrition Survey 2017
[16] NDNS Combined Years 7 and 8

WHAT WOULD PASS THE NEW MODEL?

As proposed, none of the following would pass the new model:

- Low sugar drinks in terms of SDIL (under 5g sugars/100ml)
- Low sugar drinks as defined by law (no more than 2.5g sugars/ 100ml)
- Low energy drinks as defined by law (no more than 20kcal/ 100ml (equivalent to ~5g sugars/ 100ml))
- Some energy free drinks as defined law (no more than 4kcal/ 100ml (equivalent to ~1g sugars/ 100ml))

Therefore a product could be categorised as HFSS, but be under the SDIL threshold, and be labelled as low sugar /low calorie as defined by law – all of which are based on different definitions of sugars (free, added, and total).

CASE STUDY – True Nopal Cactus Juice

The ingredients in this product are prickly pear puree from concentrate (20%), filtered water, and natural flavourings and colour (beetroot red). The natural sugar present accounts for 1.8g/ 100ml, which means it would fail the proposed model. This product would therefore face significant advertising restrictions despite being marketed at adults, and containing a nominal amount of natural sugar.

The soft drinks sector has embraced a huge and successful sugar reduction programme, and this has only been achievable through significant investment from our member companies. A number of reformulated drinks will potentially now be categorised as HFSS/less healthy when in fact they are not high in sugars or calories and are the healthier options within the category. This is unreasonable considering that they are defined as low calorie or low sugars by Regulation, and come in line with the SDIL. The proposed NPM unfairly groups together “regular” soft drinks, and those which are below the SDIL threshold of 5g sugar/100ml.

The 5g/100ml SDIL level was only implemented two months ago, and industry has made huge investment in the reformulation exercise. As noted in Appendix K of the consultation package (page 121), there are existing legally defined thresholds for sugars for the purposes of the SDIL, as well as those for low sugars, low calorie and energy free established in nutrition and health claims Regulations, noted above. By setting the scoring (1 point) to start at 0.9g/100ml products falling into all of these categories fail and there is no differentiation versus higher sugar products.

As a result of this and other Government measures, soft drinks companies and families could be faced with multiple standards and different definitions and understandings around what products are “high” and “low” sugar. For example, a product could be categorised as HFSS or less healthy, but be under the SDIL threshold, and be labelled as low sugar /low calorie according to Regulations on nutrition and health claims – all of which are based on different definitions of sugars (free, added, and total).

As well as supporting policy objectives to drive healthier choices in the category, re-setting the scoring bands to allow the possibility for energy-free, low calorie and low sugars drinks to pass will be fairer in differentiating lower sugar drinks from those with higher sugars and will avoid penalising companies that have invested significantly in sugar reduction. This would also will address the very confusing inconsistencies with food and beverage Regulations (particularly Regulations on Nutrition and Health Claims) and with thresholds in other policy areas.

CASE STUDY – AG BARR

AG Barr has undertaken a full reformulation of its Barr range of carbonated flavoured soft drinks to reduce the sugar content. These reformulated products now meet the SDIL threshold, with some categorised as “low sugar” under the Nutrition and Health claims regulations, and able to display a green or amber traffic light for total sugars.

These products would fail the proposed model and would be considered as HFSS.

This highlights the confusion in policies that companies are currently facing, after years of reformulation, requiring heavy investment.

RECOMMENDATION

Revisit the model to ensure that reformulated drinks are not categorised as HFSS, and can be promoted as Government policy was intended to encourage.

Products developed for children

Fruit and vegetable juice and combination drinks are currently permitted in schools throughout the UK, and the proposed NPM may leave companies in a position where they are unable to advertise products developed for children (using Government guidelines), to children. There may also be an impact on what products industry can donate to charities including “Magic Breakfast”. It would be fair to assert that his may all have a negative effect on children’s fruit, vegetable and micronutrient intake.

CASE STUDY – OMJ!

The OMJ! brand has been developed to meet the requirements for schools; and currently has a total score of 0 or -1, making it suitable for advertising to children.

Under the proposed model, these products would score 3 or 4 and would therefore be subject to advertising restrictions.

These products have been formulated as combination drinks to meet the Foods for Schools regulations - so being acceptable for children. There is therefore a disparity in that these products formulated for children in line with Government requirements, will not be permitted to be advertised to them.

Free sugars in fruit and vegetable juice

The UK SACN reported no significant association between unsweetened fruit juice consumption and BMI, body fatness or fat distribution in children or adolescents[17]. Recent reviews of the evidence do not support an association between intake of 100% juice and weight or obesity in children after controlling for energy intake.[18] Therefore, any concerns regarding fruit juice, as a source of free sugars intake, and obesity in children does not appear to be warranted, and harmful effects on teeth can be mitigated by promoting guidance to consume at mealtimes (which 84% of fruit juice consumption occasions already are[19]).

Furthermore, beneficial effects of fruit juice consumption have been reported on both blood pressure and blood lipid profiles,[20] and the evidence on the association between fruit juice consumption and incident Type 2 diabetes is inconsistent.[21]

CASE STUDY – Purity Drinks

This brand has reformulated on two occasions – first in 2016 when it reduced the sugar by 10% (bringing it down to 10g/ 100ml); and then again in 2017 when Purity Drinks removed all added sugar – leaving the natural sugar content at 4.3g/ 100ml, below the SDIL threshold. This juice also serves as 1 of your 5 a day due to the blackcurrant content.

After significant investment and two reformulation exercises, this product would fail the proposed model.

[17] SACN Review
[18] Auerbach et al., 2017; Crowe-White et al., 2016)
[19] Kantar
[20] Zheng et al., 2017
[21] Imamura et al

Advertising

The food and drink sector, including soft drinks, is covered by strict regulatory advertising codes of practice. Adverts are banned on children's TV channels and children's programmes, and restrictions limit them around programmes of direct appeal to under 16s. This is why UK's broadcast advertising rules are, as described by Ofcom, "already amongst the strictest in the world".

Soft drinks companies voluntarily took a decision not to advertise any drinks high in added sugar to under 16s across all media channels - including online, advergames, around schools, and specific sporting events – a year ahead of the CAP code revision. In addition, the sector has increased advertising spend on low and no calorie drinks substantially in recent years – a trend which is reflected in sales (no/low calorie options now make up the largest segment of the soft drinks market – 58%).[22]

For fruit and vegetable juices and reformulated soft drinks to be categorised as HFSS, thus diminishing opportunities to promote products Government policy was intended to encourage, would be confusing for consumers, and not based on evidence.

EXTENDED USE OF THE MODEL

Whilst we understand that the purpose of the model is in defining what can be advertised to children, it is used beyond this scope. The NHS uses the model within CQUIN to ban HFSS adverts, price promotions and placement of products at checkouts within hospitals. There are ongoing discussions in Westminster and Holyrood which may extend the model's use. The model is also used by media, health charities and NGOs when discussing food, often in the context of "junk food", and the London Mayor has indicated his intent to use the model for what can and cannot be advertised throughout the transport network in London, a proposal which he is currently consulting on. Although the model is a technical one for food businesses, the examples above highlight that the effects of the model are public facing.

[22] Global Data

CASE STUDY – Lucozade Ribena Suntory (LRS)
Since 2017, the company has reduced sugar by 50% on average across its core range of drinks and created zero/reduced calorie alternatives for every brand.

All its core brands now contain less than 5g of sugar per 100ml, and all Lucozade Energy, Lucozade Sport and Orangina drinks contain less than 4.5g per 100ml meaning they are classified as non HFSS.

In total, LRS has removed 25,500 tonnes of sugar and 98.1 billion calories from its portfolio, providing consumers with a responsible choice of soft drinks.

If the new model is adopted, none of the drinks mentioned above would pass the model, despite the significant pro-active effort and investment by the company to act responsibly and reformulate products to ensure they are not HFSS, and therefore could face significant advertising restrictions.

Conclusion
The proposed revisions to the NPM would mean 100% fruit and vegetable juice would be categorised as 1 of your 5 a day, and included as part of the Eatwell guidance, yet at the same time be classified as HFSS and therefore subject to strict advertising and sale restrictions.

We are therefore calling on PHE to revisit these proposals urgently.

The proposed model will also classify drinks that have been reformulated to offer alternative low calorie products as HFSS, which will mean they are not allowed to be promoted as healthier alternatives.

This proposal is inconsistent with other Government targets on sugar content, does not allow for recognition of the reformulation efforts of the industry and will limit the promotion of alternative low calorie and nutritious products.

We therefore call on PHE to:

- **Exempt fruit and vegetable juice from the model; or rebalance the points system to allow for a maximum of 10 points to be awarded for fruit and vegetables and fibre, both of which smoothies and one of which fruit and vegetable juice delivers on**
- **Revisit the model to ensure that reformulated drinks are not categorised as HFSS, and can be promoted as Government policy was intended to encourage.**

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ANNEX 1

General feedback on proposal

Page 18 – Development of the NPM dataset
The dates of the development of the dataset and quality control checks (Appendix G), may not reflect the significant reformulation activities which have been undertaken by the soft drinks sector.

Peer Review Document Para 4.7 *The expert group terms of reference did not include validation of the draft 2018 NPM. The UK NPM 2004/5 was subject to views of nutrition professionals in its development the expert group, felt rather than repeat these steps, the use of performance measures would also be more objective. The Eatwell Guide does not recommend specific foods and drinks are to be consumed, rather it refers to food groups. The Eatwell Guide does not contain composite foods. In addition, not all foods depicted in the Eatwell Guide will be advertised to children. Therefore, this approach was not considered necessary.* **PHE state that the Eatwell Guide is "a policy tool used to define government recommendations on eating healthily and achieving a balanced diet" – further it clearly states that a 150ml portion of fruit or vegetable juice counts towards 1 of your 5 a day. The NPM and all PHE advice should contain consistent policy statements and messaging.**

Page 25 *Excluding whole food and drink categories from the NPM would require starting from first principles and could introduce bias inconsistent with messages around a balanced diet. Retention of per 100g was agreed in order to avoid unnecessary complexity, as there are few UK dietary recommendations on portion sizes and a variety of sizes used on food.* **We would like to understand more about this concern. In the case of fruit and vegetable juice, an exclusion would enable all the benefits of the model to be retained without the unintended consequence of children getting less fruit and vegetables in their diet; further there is a clear 150ml portion size recommendation for fruit and vegetable juice.**

Paragraph 5.20 *Most fruit and vegetable juice would pass modification 2 but not 3. The increase in free sugars was not offset by increasing scoring for fibre as nutrient composition data shows that fruit juice is not a 'source of fibre' and government recommends limiting fruit juice/smoothie intake to a combined total of 150ml a day.* **This suggests that fibre is the only benefit of consuming fruit and vegetable juice. A significant body of evidence demonstrate the benefits of the micronutrient content of fruit and vegetables which is still present in fruit and vegetable juice and smoothies. This micronutrient content is not recognised by the model.**

Page 30 *The contribution of foods naturally high in sugars to a balanced diet was addressed through the inclusion of scoring for fruit, vegetables and nuts in the UK NPM 2004/5.* **We do not believe this was addressed adequately for fruit and vegetable juice which only contribute as much energy, or less, to children's diets as whole fruit.**

Page 33 *Options of extending the UK NPM 2004/5 scoring scale for fruit, vegetable and nuts were considered, given the change in public health advice on sugars and fibre recommended by SACN. It was decided that this modification might bias the outcome and mask the overall score for foods and drinks high in salt, sugar and fat.* **We do not understand what bias this would introduce other than to encourage more products to be reformulated to include more fruit and vegetables.**

Paragraph 5.34 *Other performance measures for 'source of fibre' and 'high fibre' were used to compare outcomes of the fruit, vegetable and nuts modifications against the UK NPM 2004/5. Adjustments to extend the fruit, vegetable and nuts scoring within the model made little difference to the performance of the model (see paragraph 4.13 for the other performance measures).* **The adjustments may have made little difference overall, but to a category that delivers a food group that is under consumed by teenagers; in reality it makes a huge difference.**

Paragraph 5.35 *Of 2,620 food and drink products in the NPM test dataset, there was a very small/no difference in the overall number of foods and drinks passing the model in modifications 2 and 3 with fruit, vegetable and nuts scoring modifications a, b and c in comparison to modifications 2 and 3 (Table 10).* **That small difference overall is a big difference for fruit and vegetable juice and has the potential for a big impact on 5 a day attainment.**

Paragraph 5.36 (page 35) *It was concluded that there was no justification for making amendments to FVN component of the UK NPM 2004/5.* **Inherent in this statement is the belief that the only benefit of consuming fruit is fibre. From para 4.13 onwards, the only performance measures are for macronutrients so a product that delivers well on micronutrients is overlooked.**

Paragraph 7.4 *The draft 2018 NPM is in line with the current UK dietary recommendations, which recommended average population maximum intakes of free sugars should be no more than 5% of total dietary energy and fibre intake should increase to 30g in adults.* **The proposal does not reflect the recommendation of 150ml of fruit juice contributing to 1 of your 5 a day.**

Paragraph 7.10 *"Fruit juices largely no longer pass the model because of their free sugars content"* **It is impossible for 100% fruit and vegetable juice to pass the model at all.**

Paragraph 13.2 (page 120) *A performance measure for fruit and vegetables was not developed, as this would have been unlikely to change the outcome as few foods and drinks in the NPM test dataset contain sufficient fruit and vegetables to increase the likelihood of achieving a pass score.* **Those few foods would have included the whole category of fruit and vegetable juice.**

Table 1: Rationale for the development of the NPM performance measure cut off values (page 121) *Drinks: No performance measure cut off values were developed for fibre for drinks.* **This would be relevant for smoothies which, as detailed in our substantive response, are an excellent source of fibre.**

Table 9: Designation of drinks as being low-calorie
In determining performance outcomes, drinks appear to have been designated as low-calorie or not low calorie. It is not clear how 'low-calorie' has been defined i.e. whether that is by the EU definition or by what are labelled as 'diet' drinks. This may affect the performance of the models. It would appear that any drink which is not 'diet' has been grouped together regardless of its sugar content.

Definition of Free Sugars *Sugar naturally present in fruit and vegetable juices, smoothies and dairy alternative drinks included in FS definition. The basis for this is that drinks have the potential to deliver large amounts of sugar.* **This is not apparent in reality (as detailed earlier in our response, data on % energy intake from fruit versus fruit juice does not support this and children are not over consuming fruit and vegetable juice). Continued messaging on 150ml portion size would alleviate this concern and support the 1 of 5 a day.**

ANNEX 2

Nutritional Summary[23]

European Union regulation 1924/2006 states that, in order to use a nutrition claim, 100g of a food or 100ml of a drink must contain at least 15% or 7.5% respectively of the nutrient reference value (NRV).[24] In accordance with this, 100% juices of orange, grapefruit, lemon, pineapple and tomato can be declared a "source" of vitamin C; orange, pineapple and tomato juices meet the criterion for potassium; while orange juice additionally meets the criterion for folate.

Fruit juice contributes 5-6% of folate in UK children's diets. However, between 38% and 74% of UK children aged 11 – 18 years old have serum folate concentrations indicative of increased risk of biochemical folate insufficiency[25]. Reducing intake of fruit juice, particularly orange juice, could compromise this situation further.

The nutrients in fruit juice come directly from the squeezed fruit. When micronutrient levels of vitamin A, folate, vitamin C, calcium, magnesium and potassium were compared in juices versus the whole fruits from which they were derived, no significant differences were found. In some cases, sodium may be higher in 100% fruit juices while the content of potassium, phosphorus and magnesium may be lower compared with the corresponding fresh fruit extract.[26]

Intestinal absorption of non-haem iron is inhibited by some compounds present in foods, such as phytates or polyphenolic compounds, and conversely, is promoted by others, such as vitamin C (ascorbic acid). The role of vitamin C in this regard is so important that the WHO considered its impact on the bioavailability of iron when developing Dietary Reference Values.[27] Thus, consuming 100% fruit juice along with foods rich in non-haem iron can help increase absorption of this mineral. This is of particular importance in the UK, where 48% of teenage girls have iron intakes below the lower reference nutrient intake (LRNI).[28]

Pro-vitamin carotenoids (for example, ß-carotene), present in fruit and vegetables, represent about 40% of the vitamin A consumed daily in western countries. A study of 8,861 subjects, including 2,310 who routinely drank juice, reported a 14% higher daily vitamin A intake among the routine orange juice drinkers compared to non-consumers (660µg retinol equivalent/day vs. 580µg retinol equivalent/day

[23] Fruit Juice Matters – Share the Science, Celebrate the Goodness
[24] See Annex XIII of Regulation 1169/2011.
[25] NDNS Years 7 and 8 combined
[26] Serpen JY (2012) Comparison of sugar content in bottled 100% fruit juice versus extracted juice of fresh fruit. *Food Nutr Sci* 3: 1509-1513.
[27] EFSA Panel on Dietetic Products, Nutrition and Allergies (2015) Scientific Opinion on Dietary Reference Values for iron. *EFSA J* 13:4254, 115 pp.
[28] NDNS Years 5 and 6 combined

respectively).[29] A substantial proportion of children in the UK (16% aged 11 – 18 years old) have intakes below the LRNI for vitamin A.[30]

A study that analysed blood carotenoids, found higher blood concentrations of alpha-carotene after the consumption of juice compared with consumption of raw or cooked whole vegetables.[31] Fruit (and vegetable) juices typically have a high content of certain micronutrients whose bioavailability, as in the case of provitamin carotenoids, can be higher compared with corresponding raw or cooked whole fruits and vegetable.

Potassium and blood pressure

Potassium is found in significant quantities of 100% fruit juices, as well as vegetables and whole grain cereals. The WHO suggests a potassium intake of 3,510 mg/day, based on a systemic review of the literature, with a view to controlling blood pressure and reducing the risk of cardiovascular disease, particularly stroke[32]. Consumption of fruit juices in moderate amounts (around 150-200ml per day) and as part of a balanced diet could help consumers achieve recommended potassium intake levels and support the maintenance of normal blood pressure in the general population.[33] In the UK, 15% of boys and 33% of girls (aged 11-18) have intakes of potassium below the LRNI.

Phytochemicals

Phytocompounds such as carotenoids, particularly lutein, β-carotene and lycopene, as well as polyphenols are present in many 100% fruit juices. In citrus fruits, as most of the phenolic compounds and carotenoids are found in the skin[34], industrial pressing allows for a greater amount of phytocompounds to pass into the juice.[35]

Typically, dietary guidelines recommend a high intake of fruit and vegetables to contribute towards vitamin and mineral intakes as part of an overall balanced diet. 100% fruit juices have a high density of certain micronutrients, intakes for some of

[29] O'Neil CE et al. (2012) 100% Orange Juice consumption is associated with better diet quality, improved nutrient adequacy, decreased risk for obesity, and improved biomarkers of health in adults: National Health and Examination Survey, 2003 – 2006. *Nutr J* 11: 107.

[30] NDNS Years 5 and 6 combined

[31] McEligot AJ et al. (1999) Comparison of serum carotenoid responses between women consuming vegetable juice and women consuming raw or cooked vegetables. *Cancer Epidemiol Biomarkers Prev* 8: 227-231.

[32] World Health Organization (2012) Effect of increased potassium intake on blood pressure, renal function, blood lipids and other potential adverse effects. WHO: Geneva, Switzerland.

[33] EFSA Panel on Dietetic Products, Nutrition and Allergies Scientific (2010) Opinion on the substantiation of health claims related to potassium and maintenance of normal muscular and neurological function (ID 320, 386) and maintenance of normal blood pressure (ID 321) pursuant to Article 13(1) of Regulation (EC) No 1924/20061. *EFSA J* 8:1469, 17 pp.

[34] Peleg H et al. (1991) Distribution of bound and free phenolic acids in oranges (*Citrus sinensis*) and grapefruits (*Citrus paradisi*). *J Sci Food Agric* 57:417–426.

[35] Gil-Izquierdo A et al. (2002) Effect of processing techniques at industrial scale on orange juice antioxidant and beneficial health compounds. *J Agric Food Chem 50:* 5107–5114.

which are of concern in children in the UK, and their consumption is associated with greater likelihood of adherence to dietary guidelines for vitamins and minerals[36]. Concerns that the natural sugar content may adversely affect diet quality or energy balance are unfounded. 100% fruit juices may be declared a "source" of key micronutrients, and some nutritional compounds in fruit juice have greater bioavailability than in the fresh fruits from which they are derived.

Appendix

https://fruitjuicematters.eu/en/consumption-and-behaviour/role-of-100-fruit-juice-in-the-diet

https://fruitjuicematters.eu/en/nutrition-and-bio-availability/nutritional-benefits-of-100-fruit-juice

https://fruitjuicematters.eu/en/technical-data-and-law/fructose-and-100-fruit-juice

https://fruitjuicematters.eu/en/consumption-and-behaviour/does-100-fruit-juice-impact-on-body-weight

https://fruitjuicematters.eu/en/consumption-and-behaviour/100-fruit-juices-and-sugar

https://fruitjuicematters.eu/en/new-science/metabolic-health-and-100-fruit-juice

https://fruitjuicematters.eu/en/new-science/100-fruit-juice-and-cardiovascular-disease

https://fruitjuicematters.eu/en/nutrition-and-bio-availability/nutrients-in-100-fruit-juice-are-bioavailable-but-processed-has-edge-over-fresh-for-bioactives

Carolina Ribeiro et al. Orange juice allied to a reduced-calorie diet results in weight loss and ameliorate obesity-related biomarkers' randomized controlled trial. Nutrition 38 (2017)-13-19

[36] Gibson and Francis

10. British Specialist Nutrition Association Limited

This submission is made by the British Specialist Nutrition Association (BSNA), the voice of the specialist nutrition industry in the UK. We are a trade association that represents manufacturers of products designed to meet the needs of specific groups of people with very particular nutritional requirements.

Specific groups of people that use our specialist products include:

- Infants from 0 to 12 months old
- Young children under 3 years of age
- Patients, including children, with clinically diagnosed diseases, disorders or medical conditions

These products are created for vulnerable groups whose specialist care requires advice and guidance from healthcare professionals. The products are highly specialised and are underpinned by evidence-based scientific research into nutritional needs and requirements of specific groups of people.

Given the unique requirements of the specific groups that the products are designed for, in general, the products are highly regulated and governed by strict compositional and labelling legislation.

BSNA strongly encourages PHE to consider foods for infants and young children (0-36 months) as exempt from inclusion in the Nutrient Profiling Model. Furthermore, we seek acknowledgement within the model, that it has not been validated for infants and young children (0-36 months). The rationale for this is laid out below.

- **Products for infants and young children (0-36 months) are already covered by specific legislation which controls their composition**

'Foods for Specific Groups' (FSG) are specifically legislated for by Regulation EU (No) 609/2013 (formerly Directive 2009/39/EC on Foodstuffs for Particular Nutritional Uses). These foods are intended for specific vulnerable groups of consumers, including food intended for infants and young children, food for special medical purposes, and total diet replacement for weight control.[37] The legislation sets specific nutritional composition and labelling rules for foods specifically created for these specific groups of consumers.

[37] Regulation (EU) 609/2013 on food intended for infants and young children, food for special medical purposes, and total diet replacement for weight control, so-called "*Foods for Specific Groups*" (FSG)

In this respect, it is worth flagging the following pieces of EU legislation:

- Directive 1999/21/EC on dietary foods for special medical purposes (so-called "*FSMPs*"):[38]
  - Sets specific composition criteria for medical foods intended specifically for infants (*inter alia* for vitamins and minerals in nutritionally complete foods intended for use by infants);

- Directive 2006/141/EC on infant and follow-on formulae[39] and amending Directive 1999/21/EC:
  - Sets specific composition criteria for infant and follow-on formulae (*inter alia* for energy, proteins, lipids, sugars, vitamins and minerals);

- Directive 2006/125/EC on processed cereal-based foods and baby foods for infants and young children (so-called "*complementary foods*")[40]:
  - Sets specific composition criteria for specific categories of complementary foods (*inter alia* for proteins, lipids, sugars, vitamins and minerals).

For example; Directive 2006/141/EC stipulates that the carbohydrate level of infant and follow on formula should be in the range of 9-14g/100kcal, and also specifies the carbohydrate sources that are permitted for use – with most manufacturers opting for lactose as a preferred carbohydrate source. Lactose is the predominant source of carbohydrate in human milk, and alongside its nutrient value, it is thought to have other benefits, for example, a suggested role in innate immunity via upregulation of gastrointestinal anti-microbial proteins that may lead to protection of the neonatal gut against pathogens and regulation of the microbiota of the infant.[41]

The same legislation sets a limit for the level of protein that an infant or follow on formula can provide. This limit is currently set at 3.0g/100kcal for infant formula and 3.5g for follow on formula based on cows' or goats' milk protein. It is of note that the new EU regulation (EU) No. 2016/127 that comes into force in 2020 will set a reduced maximum protein level at 2.5g/100kcal in line with the latest scientific evidence, seeking to offer a protein level that is adequate to promote normal growth and development whilst acknowledging the growing body of evidence linking higher protein intakes in infancy with increased growth and higher BMI in childhood.[42, 43]

[38] Commission Directive 1999/21/EC of 25 March 1999 on dietary foods for special medical purposes
[39] Commission Directive 2006/141/EC of 22 December 2006 on infant formulae and follow-on formulae
[40] Commission Directive 2006/125/EC of 5 December 2006 on processed cereal-based foods and baby foods for infants and young children
[41] Cederlund A, Kai-Larsen Y, Printz G *et al* (2013). Lactose in human breast milk an inducer of innate immunity with implications for a role in intestinal homeostasis. *PLoS One* **8**(1): e53876.
[42] Koletzko, B., R. von Kries, R. Closa, J. *et al* (2009) European Childhood Obesity Trial Study (2009). "Lower protein in infant formula is associated with lower weight up to age 2 y: a randomized clinical trial." *Am J Clin Nutr* **89**(6): 1836-1845

A nutrient profiling model that rewards higher protein content and reductions in free-sugar content (including added lactose) is contradictory to the European legislation that is designed to safeguard the nutritional health of infants and young children.

Although the primary intention of the NPM is in defining what products can be advertised to children, it has also been viewed as a reformulation incentive for manufacturers. Compliance with the aforementioned legislation is mandatory for manufacturers of foods for infants and young children and reformulation to a nutritional profile outside of these legislative parameters, in order to achieve an improved NPM score, would not be an option as it would result in a breach of current legislation.

- **The application of the nutrient profiling model is not appropriate or relevant for the infant and young child feeding category (0-36 months)**

The nutritional needs of infants and young children under 3 years old are very different from those of adults or older children. They need more calories per unit of body weight compared to older children, a greater proportion of calories coming from fat and, whilst protein is necessary for growth of muscle and bone tissue, it is important (as previously discussed) to avoid excessive intake during the first years of life.

Both the existing and proposed nutrient profiling models are based on nutritional requirements of 11-16-year olds. Although a review has concluded the model was equally applicable to children 5 years and older, it was acknowledged that infants 0-4 years have different nutritional requirements, and as such, the choice of nutrients for profiling in this age group would be quite different to that for older children.[44] The basic principles of this nutrient profiling model do not all apply to infants and young children and the adoption for this age group is inappropriate.

In addition, Foods for Special Medical Purposes intended specifically for infants, are designed for use in the dietary management of children with medical conditions and diseases. The formulation of these highly specialised products is based on scientific evidence and the nutrient values in these products are generally higher than in standard formulas due to the increased nutritional needs of infants and young children with a medical condition. Due to the specific nature of Foods for Special Medical Purposes, it would not be appropriate to include them in the Nutrient Profiling Models.

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[43] EFSA (2014). Scientific Opinion on the essential composition of infant and follow-on formulae. EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA). *EFSA Journal* 2014;**12**(7):3760.

[44] Rayner M, Scarborough P and Stockley L (2005) Nutrient profiles: Applicability of currently proposed model for uses in relation to promotion of food to children aged 5-10 and adults. British Heart Foundation Health Promotion Research Group, Department of Public Health, University of Oxford. Available at: https://www.researchgate.net/publication/267952402_Nutrient_profiles_Applicability_of_currently_proposed_model_for_uses_in_relation_to_promotion_of_food_to_children_aged_5-10_and_adults (last accessed 14 May 2018)

- **This model is incoherent with other Government policies on nutrition**

With specific reference to the infant feeding category - public health recommendations favour the use of simple purees of fruit and vegetables as appropriate first weaning foods. Yet, a small number of commercially available purees would be classified as 'less healthy' under the new model, owing to the classification of sugars from fruit puree as 'free sugars'.

The SACN report on Carbohydrates and Health acknowledged a lack of evidence of the health effects of free sugars in children under the age of 2 years.[45] While it is unlikely that these effects will be different from those in older children or adults, there should be an acknowledgement of the clear safety need to puree food, so that it is suitable for consumption by infants and of the need to provide a wide range of appropriately textured fruits and vegetables to support a healthy weaning journey.

- **The calculation of free sugars does not include any products for the infant and young child feeding category**

Calculation of free sugars is technically challenging and the calculation assumptions that have been provided in Appendix I do not include any products from the infant and young child feeding category.

Free sugars cannot be analysed for, and will not appear within an ingredients declaration or recipe. This means that for any product to be advertised, companies will have to calculate a free sugars value. In order to advertise on television this must be submitted to Clearcast in advance of the advertising being allowed to proceed. This means there will be a burden of proof on companies advertising products that pass the model to demonstrate whether the sugars are free or not.

This could be subject to challenge, as the level of free sugars is open to interpretation, resulting in a potential situation where the regulator will have to determine which calculations are correct. This could also result in a request for companies to supply detailed, weighted ingredients information, which is not normally placed in the public domain and could be competitively detrimental to a company.

Company nutritionists currently profiling their products using the new model are finding it difficult to determine the free sugars content of certain products. This is

[45] Scientific Advisory Committee in Nutrition (SACN). Carbohydrates and Health (2015). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/445503/SACN_Carbohydrates_and_Health.pdf (last accessed 14 May 2018).

where there is a mixture of free and intrinsic sugars such as yogurts with added fruit puree or mashed texture products where there is combination of solids and purees. For example:

- It is unclear what the level of mechanical processing required of fruit and vegetables is in order for them to be classified as free sugars. Is there a threshold size of piece or viscosity of final product for when a puree / paste is not classified as such because it contains some small whole pieces of fruits or vegetables (e.g. some baby food products)?

In conclusion

Given the specialist nutritional needs of infants and young children (0-36 months) and the highly regulated nature of the products for this specific group, including nutritional composition, BSNA strongly encourage PHE to consider foods for infants and young children (0-36 months) as exempt from inclusion in the Nutrient Profiling Model. The current and new nutrient profiling models are simply not appropriate for use for this age group.