**Questions & Answers: The Nutrient and Promotion Profile Model**

Use this document to help youdeal with any questions you receive from supporters, opponents and/or the media

**What is nutrient profiling?**

Nutrient profiling is used to classify foods according to nutrient levels related to promoting health.

**What’s the difference between Nutrient Profile Models (NPM) and this Nutrient and Promotion Profile Model (NPPM)?**

They are essentially the same. We have called this model ‘NPPM’ to highlight the important role that promotional material (pack labels and other marketing) has on product suitability for commercial baby foods.

**Why is a European NPPM needed?**

There is increasing recognition that some food products for infants and young children (FIYC) (or baby foods) do not support public health dietary recommendations and do not adhere to WHO’s recommended age of food introduction (6 months of age).

The aims of the NPPM are to protect breastfeeding, prevent obesity and chronic diseases, promote a healthy diet, and ensure caregivers receive clear and accurate information on feeding.

**When was the NPPM created?**

In 2016, the World Health Assembly approved WHO guidance on ending the inappropriate promotion of foods for infants and young children through resolution WHA69.9. The draft NPM was commissioned in 2018 and completed and published in 2019. Updates to the NPM were commissioned in 2021 and completed early in 2022.

**What data and steps were used to create the NPPM?**

The NPPM was carefully developed through several steps and using data from different sources:

* Recommended WHO steps for developing Nutrient Profile Models were followed;1
* Food categories and nutrient thresholds were set with reference to existing European Commission directives2 and Codex standards3 and by examining gaps in existing guidelines in terms of current concerns (e.g. sugar intake) and the current product market;
* The model reflects the approach used in the WHO Regional Office for Europe NPM for children over 36 months;4
* Detailed validation and modelling exercises were undertaken to check and refine product categories and nutrient thresholds. We evaluated 2634 FIYC on the market from 10 countries across Europe (UK, Denmark and Spain, Estonia, Hungary, Italy, Malta, Norway, Portugal and Slovenia). Further modelling exercises estimated of the proportion of products that would meet the proposed requirements before and after product reformulation and these informed refinements to nutrient thresholds;5
* The draft NPM5 was later refined and simplified through consultation with countries that had applied the NPM in their countries and through consultation with attendees at a pan-European WHO meeting on Nutrient Profile Models in Babies and Children in 2021.

**What does the application of the NPPM seek to achieve?**

Using the NPPM to evaluate products and generate evidence about unsuitable products will help to drive positive changes in product composition and marketing to protect breastfeeding, prevent obesity and chronic diseases, promote a healthy diet, and ensure caregivers receive clear and accurate information on feeding.

The NPPM helps in identifying products that can and cannot be promoted for infants and young children up to 36 months - a crucial first step towards implementing the WHO guidance and in supporting the development of effective legal and policy measures to avoid inappropriate promotion.

Updated guidelines, regulations and legislation may be needed to ensure product promotions and labelling do not undermine important public health recommendations.

**How can governments use this Model?**

Ultimately, it is intended that governments will be able to use (or adapt) the model for the purposes of restricting the inappropriate promotion of foods for infants and young children in their own countries. Evaluating current products against NPPM standards gives an indication of concerning product areas and provides evidence towards policy changes and in support of mandatory (legal) requirements for manufacturers.

**What are the key concerns with FIYC?**

The evidence, as outlined in the [WHO Report](https://apps.who.int/iris/handle/10665/364678), suggests there are a number of concerns with FIYC, in particular:

* Ingredients and nutritional profile may not be consistent with international dietary and nutrient guidelines:
  + Use of added salt and high sodium contents, particularly for snack foods.
  + Frequent addition of free sugars including use of fruit juice and fruit juice concentrate to sweeten products, including breakfast foods, desserts and snacks.
  + Many FIYC are sweet and mask vegetable and other flavours with fruit, meaning infants may not be exposed to a range of tastes.
  + Many FIYC have high total sugar content because of high fruit content and are pureed meaning sugars are more readily digested (like free sugars).
* Many FIYC and are highly processed (puréed) which may negatively influence children’s learning about texture and chewing development.
* A significant number of products state suitability from 4 months of age, in contradiction to WHO guidelines on food introduction around 6 months of age and WHO guidelines for exclusive breastfeeding until 6 months of age.
* Many products have misleading names (often to hide the high fruit content) and include promotional statements that imply superiority of commercial products over home-prepared foods.

Further details are provided in the main report.

**Why are current regulations for FIYC outdated/insufficient?**

Existing regulations are outdated and are insufficient to address the multiple issues identified with products available in today’s market.

In the WHO European Region, Codex guidelines and European Union (EU) directives ensure that FIYC are safe and adhere to specified minimum or maximum nutrient thresholds. The market has diversified and proliferated extensively since these guidelines and regulations were developed. The high free and total-sugar content of FIYC, the texture and flavours used, the development of new snacking products, misleading product names, widespread use of claims and the early recommended age of introduction on the label (typically under 6 months) are some of the concerns that are not fully addressed in current guidelines. Further details are provided in the main report.

**Has the Model been validated and tested?**

Yes. Earlier versions of the Model have been validated against product data from 2634 products on sale in Denmark, Spain and the United Kingdom and a further seven European countries. The NPPM was amended following validation and pilot testing (details provided above and in the 2019 NPM report)

The draft model has also been used in Poland and Russia for conducting product evaluations and member states from across Europe have provided feedback on model suitability. The final model was drafted accounting for feedback from users and from different countries in the WHO European Region.

**How can governments achieve the goal of reducing sale of inappropriate FIYCs?**

Multiple actions are needed to understand the issues with FIYCs, evaluate the market and product use, and work with key stakeholders to increase awareness of public health goals and elicit meaningful impact on product formulation and marketing:

Step 1: Read report/review the WHO Toolkit

Step 2: Evaluate products on sale and key areas of concern (using the evaluation document in the Toolkit)

Step 3: Examine whether the NPPM can be adopted in whole or needs modifications to suit your country

Step 4: Identify key stakeholders (using the audience mapping document included in the Toolkit) including consumers, manufacturers and policy makers/legislators

Step 5: Create a plan of action and list of appropriate targets you will request all stakeholders work towards for driving legislative change

Step 6: Review progress towards your goals annually and set new targets

**How are products categorised in the NPPM?**

The NPPM is designed to help users easily identify which category a product fits into and then nutrient specifications for that category can be evaluated. The NPPM separates the following products because of different nutritional and packaging requirements: Dry cereals and starches; Dairy foods; Fruit & Vegetable purees/smoothies and fruit desserts; Savoury meals and meal components; Snacks and finger foods; Ingredients; Confectionery (not permitted); and Drinks (not permitted).

The NPM pays particular attention to the marketing of FIYC high in free sugars and salt, as called for in the WHO guidance in addition to ensuring product quality in terms of high energy density (low water content) and appropriate fat and protein content.

C**an you provide a summary of the provisions for foods and their nutritional composition?**

NOT PERMITTED

* Free sugars/sweeteners (including any syrup/honey or fruit juice)
* Confectionery
* Flavoured drinks
* Industrially produced trans fatty acids

LIMITED

* Fruit content in meals, dry cereals & dairy foods

MAXIMUM STANDARDS

* Energy per serving in snacks  (50kcal/serving)
* Energy from total sugar in savoury meals and snacks (15%)
* Sodium
* Total fat

MINIMUM STANDARDS

* Protein content in meals
* Energy density (to avoid watery purees)

**Can you provide a summary of the proposed requirements on packaging, labelling and promotions of CACFs?**

* Min. age for all products is 6 months
* Max. age for pureed foods is 12 months
* Front-of-pack labels required for high total sugar content
  + >30% energy in fruit or vegetable purees, desserts and dry fruit
  + >40% energy in dairy foods
* Product name clarity to indicate contents in descending order and not hide the sweet taste or high fruit content
* Ingredient list must state proportion (%) of added water/stock, fruit content and traditional protein source content (e.g. 12% chicken).
* Packaging with a spout: recommend not to drink via spout
* Ban compositional (nutritional), health and marketing claims
* Inclusion of statements on the importance of continued breastfeeding

**What are the types of promotion that the NPPM is addressing?**

Common types of promotion include: advertising activities and materials, including online promotions; non-advertising promotions in communities and healthcare facilities; labelling and messaging on packing, such as health claims; and cross-promotion of products.

**Why is age of introduction so important?**

Based on the evidence reviewed by WHO and summarized here, commercial products should not be marketed as suitable for infants under 6 months old as:

1. breast milk provides adequate nutrition for most infants;

2. early complementary foods are not more nutrient- or energy-dense than usual milk (discussed below); and

3. there is insufficient evidence of clear benefit for introducing foods before 6 months of age.

The Sixty-ninth World Health Assembly called upon Member States, manufacturers and distributors, health-care professionals, the media and civil society to support the WHO guidelines. Manufacturers and distributors are requested to end all forms of inappropriate promotion (such as advertising that products are suitable for infants under 6 months) and state the importance of ongoing breastfeeding.

There is a conflict between WHO recommendations to introduce complementary foods at 6 months and many existing commercial products marketed as suitable from 4+ months.

Since FIYC sold for early introduction of solid foods (4+ months) are predominantly smooth and sweet food blends/purées and rarely include single food flavours or bitter vegetables, many FIYC may not be suited to meeting infants’ need for exposure to a variety of textures, single flavours, bitter flavours and other non-sweet foods.

Processed FIYC sold in pouches with spouts are also increasingly popular but have limited textures, high water content (meaning low nutrient/energy density) and high free-sugar content.

Not all FIYC are nutritionally inadequate, but frequent selection of low-quality foods (those with low energy density or high sugar content) may not provide the appropriate supplementary nutrition required for healthy growth and development.

**Do FIYC meet current regulatory guidelines?**

Our analysis of packet-label information of FIYC on the market in 2016/2017 in the United Kingdom (n = 768), Denmark (n = 319) and Spain (n = 241) revealed that the vast majority of products comply with current regulatory requirements.

Only 4–8% of products examined in each country did not meet the existing 2006/125 EC regulations relating to salt, protein, fat and carbohydrate content, as far as could be determined from the available data.

However, as noted above, current guidelines do not address current concerns with FIYC content.

**If FIYC meet regulatory requirements what is your concern?**

Many FIYC are high in total sugar. For example, according to our analysis of nutritional information available on packages, the mean percentage energy from total sugar in fruit purées was over 70% in each country and many products contain added free sugars, contrary to modern public health guidelines for infants and young children.

**Why is sugar in FIYC such a concern?**

Many savoury-type meals sold in the United Kingdom and Denmark derived over 15% energy from total sugars, with fruit purée providing much of the sugar content even in ostensibly savoury products. Similar to fruit juices, these sugars can be considered free sugars, due to the high maceration and consequent release of sugars from the cell wall.

Frequent intake of FIYC with a high free-sugar content may negatively affect oral health. It is reasonable to suggest that if eaten frequently or over prolonged periods, they may pose a threat to the very young as their first teeth erupt. Frequent exposure to sweet foods is also likely to influence taste preferences as children develop.

Where national guidelines exist for this age group, most recommend that free-sugar intake for infants should be as low as possible, indicating that any NPM developed should address the use of added sugars and sweetening agents as well as the use of fruit purée as an ingredient.

It is clear that added sugars are an issue in FIYC in the 10 countries assessed in the validation study: addition of free sugars was identified as the most wide-spread issue and reason for products to ‘fail’ the draft NPM. Many more products would be considered suitable on all other criteria if free sugars were not added.

**Why is the energy density of FIYC a concern?**

Purées of mainly fruits and vegetables often had relatively low energy density (lower than 50 kcal/100 g). Some of the savoury-type (meal) purées also had relatively low energy density, with levels similar to the density of simple fruit or vegetable purées (around 50–70 kcal/100 g).

Being less energy-dense than breast milk, these products may not provide sufficient energy for infants under 12 months if they are the main source of solid food. For this reason, the addition of water to many of these products may also be a concern.

**Is total fat a concern in FIYC?**

Our review showed few FIYC exceeded the current European Commission thresholds for fat (roughly equivalent to 40% energy from total fat), but some dairy-based foods contained a high proportion of total energy from saturated fat.

**Is sodium a concern in FIYC?**

Current sodium product regulations were exceeded in only a very small number of products, but some foods across all categories from each country contained over 100 mg sodium/100 kcal, which indicates that sodium content could be reduced further through reformulation.

**Is protein a concern in FIYC?**

Existing EC guidelines specify a minimum protein content in grams per 100kcal and also as a percent of product weight to ensure meals that contain meat in the product name include a minimum amount of meat, rather than protein from cheaper alternative sources. These specifications have been adopted in the NPPM. Evaluation of products in the pilot study found that meals generally included enough *total protein* (grams per 100kcal) but a substantial number of meal products (naming a traditional protein source in the name) did not meet the minimum standard for *weight of protein source*.

Concern remains that some FIYC containing meat, fish or dairy have lower protein content than homemade equivalents and may not sufficiently contribute to intake of important nutrients such as iron.

**Which changes will lead to the biggest immediate impact?**

When researchers modelled existing European product data they found that theoretically removing free sugars from foods was the single most impactful change to bring products in line with the NPPM (i.e. more products pass the model).

Researchers also modelled theoretical 10% improvements in salt reduction or fat reduction etc. and found that more products would pass the model if products were reformulated. Full details are provided in the Draft model report (citation 5 in footnote)