World Health Organization

European Region

WHO Regional Office for Europe nutrient profile model

second edition

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Corrigendum

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Document number: WHO/EURO:2023-6894-46660-68492

- Page 9, paragraph 7, line 2, should read “The 2023 model includes a threshold (0g/100g) for non-sugar sweeteners for all categories, both food and beverages, where the added sugar threshold is set at 0, except for “Processed fruit and vegetables”.”
- Table A1.1. should be replaced by Table A1.3 (Thresholds for the NPM 2023 compared with the thresholds of the 2015 model).
- Table A1.2 should be replaced by Table A1.1 (Results of the testing the draft NPM 2023 model compared with the 2015 model).
- Table A1.3 should be replaced by Table A1.2 (Food categories in the NPM 2023).
- Page 29, Table A1.3., “chocolate and sugar confectionery” category: the line for 2023 should not have a threshold value for total fat (3 g) and should have a threshold value for non-sugar sweeteners (0 g).
- Page 29, Table A1.3., “cakes and biscuits” category: the line for 2023 should have a threshold value for non-sugar sweeteners (0 g).
- Page 29, Table A1.3., “savoury snacks” category: the line for 2023 should have a threshold value for non-sugar sweeteners (0 g).
- Page 29, Table A1.3., “Yogurts, sour milk and cream” category: the line for 2015 should have a threshold value for the saturated fat (2 g).

These corrections were incorporated into the electronic file on 11 May 2023.

Abstract

This publication describes the regional nutrient profile model for use and, if necessary, adaptation by Member States in the WHO European Region in developing policies to restrict marketing of unhealthy foods to children. The second edition, presented in this report, is an updated version of the model published in 2015. It incorporates lessons learnt during adaptation of that model by Member States and by other WHO regional offices.

A brief history of the WHO Regional Office for Europe nutrient profile model developed in 2015 is provided, followed by how it has been updated. This edition is based on an expert meeting held in September 2021 by the Regional Office and on work of the European Union's Joint Action on Healthy Food for a Healthier Future (Best-ReMaP). The draft updated model was tested by 13 Member States that were partners in the Best-ReMaP Joint Action to compare the classification of foods with that in the 2015 model and to identify any practical issues in its application.

The second edition of the nutrient profile model for the WHO European Region (NPM 2023) is presented and its features described. They include its scope, the food categories for which there are different thresholds, the nutrient and other components that are taken into account, the threshold themselves and definitions of all terms.

Keywords: OBESITY; NUTRITION; POLICY; DIET; MARKETING; CHILDREN; FOOD; CHRONIC DISEASE

Document number:
WHO/EURO:2023-6894-46660-68492

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Acknowledgements

Specific contributions were made by Margarida Bica, Holly Rippin and Kremlin Wickramasinghe, WHO European Office for the Prevention and Control of Noncommunicable Diseases (NCD Office), and by Professor Mike Rayner, University of Oxford.

Further significant contributions to development of the model were made by Maria João Gregório, Portuguese Directorate of Health, and by the European Union's Joint Action on Healthy Food for a Healthier Future (Best-ReMaP), which was responsible for testing the draft model. Thanks are also extended to the countries that tested the draft model: Belgium, Croatia, Estonia, Finland, France, Greece, Ireland, Latvia, Portugal, Romania, Serbia, Slovenia and Spain.

Derya Dikmen, Hacettepe University, Türkiye, and Lauren Bandy, University of Oxford, contributed to the initial development of the recommendations for changes to update and strengthen the 2015 WHO European Region model.

Additionally, thanks are due to the European Network on Reducing Marketing Pressure on Children, led by the Portuguese Directorate of Health and involving 28 Member States, for their support and participation in developing this model.

Introduction

In July 2013, Ministers of Health of WHO Member States in the European Region adopted the Vienna Declaration on Nutrition and Noncommunicable Diseases in the Context of Health 2020 *(1)*, which acknowledges the high burden of disease caused by unhealthy diets in many countries of the Region and expressed particular concern about the increases in overweight and obesity among children. The Declaration included a commitment to take "decisive action to reduce food marketing pressure to children with regard to foods high in energy, saturated fats, trans fatty acids, free sugars or salt" and to develop and implement common policy approaches that, inter alia, promote the use of common nutrient profiling tools. Development of a common regional nutrient profile model for use or adaptation by Member States across Europe (on a voluntary or compulsory basis and taking into account individual national circumstances) was subsequently identified as a key activity in the WHO European Food and Nutrition Action Plan 2015–2020 *(2)*.

Nutrient profiling is defined by the WHO as "the science of classifying or ranking foods according to their nutritional composition for reasons related to preventing disease and promoting health" *(3)*. Nutrient profiling is considered by WHO to be critical for restricting the marketing of foods to children (1, 4), as it provides a means of differentiating between foods and non-alcoholic beverages (henceforth "foods") that are more likely to be part of a healthy diet from those that are less likely. Nutrient profiling allows categorization of foods, not diets, but can be used in policy to improve the overall nutritional quality of diets.

A nutrient profile model was thus developed by the WHO Regional Office for Europe, which is referred to hereafter as the 2015 model, specifically for the purpose of restricting the marketing of foods to children *(5)*. The model has now been updated to take into account lessons learnt during adaptation of the model by Member States of the Region and by other WHO regional offices.

Brief history of the 2015 model

WHO developed the 2015 model as described in detail by Jewell et al. *(6)*. This first involved a technical meeting with external experts and Member State representatives in December 2013, then pilot-testing of a draft model with 16 countries in the Region, with publication of the final model in 2015. Since publication of the model, four countries, Austria *(7)*, Portugal *(8)*, Slovenia *(9)* and Turkey *(10)*, have adapted it for national restrictions on food marketing to children, and other countries are considering doing so.

The 2015 model has also been adapted by four other WHO regional offices: those of the Eastern Mediterranean *(11)*, Western Pacific *(12)*, South East Asia *(13)* and Africa *(14)*. The Pan American Health Organization (the WHO Regional Office for the Americas) has also published a nutrient profile model *(15)* for a variety of regulatory

purposes, including restricting the marketing of foods to children; however, the construction of the model differs substantially from that of the other WHO regional models.

During adaptation, lessons were learnt for improving the model. Countries that have adapted the 2015 model in WHO European Region generally agree that:

- the model should continue to include category-specific nutritional thresholds;
- the scope and food categories of the model are generally appropriate but clarification was necessary about their scope and about which foods are included in which category;
- the nutrients and other components of foods to be taken into account should be essentially the same to reflect the lack of substantial change in WHO's nutritional recommendations since 2015 *(16)*;
- although WHO recommendations on sugars are for free rather than total sugars or added sugars *(16,17)*, it is more practical to use thresholds for total sugars and added sugars than to replace them with free sugar;
- nutrient thresholds should be provided for all categories in the model (except fruit and vegetables), to signal that, in general, no food should automatically pass or fail the model regardless of its nutrient composition and to acknowledge that at least a few foods in all categories can be marketed to children if their content of fat, saturated fat, sugars and sodium is low enough; and
- the nutrient thresholds should be set more systematically and linked more explicitly to WHO's nutritional recommendations (along the lines of the model of the WHO South East Asia Regional Office *(13)*).

About the nutrient profile model 2023 (NPM 2023)

Development of the NPM 2023

The science of nutrient profiling has developed since 2015. A systematic review published in 2018 identified 78 government and government-endorsed models in 25 countries, although only seven countries had developed or endorsed models specifically for the purpose of restricting the marketing of foods to children *(18)*. One of the many reasons for lack of progress in developing regulations for this purpose may be lack of an appropriate nutrient profile model. It is now over 5 years since the 2015 model was developed, and it has therefore been updated.

In September 2021, the Regional Office held another technical meeting with external experts and Member State representatives to discuss nutrient profiling *(17)*, at which it was agreed that the 2015 model should be updated. The desirability of a nutrient profile model for various purposes was discussed, including marketing restrictions but also food labelling, fiscal policies and other matters, but the practical challenges of developing such a model currently were considered too great, and it was agreed that the updated model should be solely for the purpose of marketing restrictions.

A draft updated model was presented in September 2021 by researchers from the WHO Collaborating Centre on Population Approaches to Noncommunicable Disease Prevention at Oxford University (United Kingdom) and the European Union's Joint Action on Healthy Food for a Healthier Future (Best-ReMaP) *(19)*. Best-ReMaP is a European Joint Action to improve the quality of food supplied to citizens of Europe by facilitating the exchange and testing of good practices in, for example, regulations on the marketing of food and beverages to children. Work package 6 of the Joint Action aims to support the implementation of the European Union's recently revised Audiovisual Media Services Directive, by developing, testing and pilot-testing a harmonized nutrient profile model based on the 2015 model.

The 2023 model is based on the proposals of the WHO Collaborating Centre and the Best-ReMaP Joint Action, modified after the technical meeting held in September 2021 and the results of testing a draft of the updated models. The test was conducted to compare classification of foods in the revised version with that in the 2015 model and to identify any practical issues in its application. Testing was conducted by partners in the Best-ReMaP Joint Action who were representatives of European Union Member States, who were asked to compile data on composition and other necessary information for a sample of foods and to report on application of the draft updated model to those data. Countries that had a branded food database were asked to compile data on the composition of as many foods as possible. Countries without a branded food database were asked to collect data on composition from the website of their main on-line retailer. Data were requested for a specified number of

foods in each draft model food category (10–20 foods for each category) for a total of 335 foods. Countries were then asked to apply both the 2015 model and the draft updated model to their sample.

Testing and, in some countries, data collection was conducted in March–June 2022. Testing was completed by 13 countries: Belgium, Croatia, Estonia, Finland, France, Greece, Ireland, Latvia, Portugal, Serbia, Slovenia, Spain and Romania. The data were combined into a database for the final analysis, for a total of 108 578 products.

The results showed that foods were classified similarly in the draft updated model and the 2015 model (as intended). Some changes were made to the draft updated model, mostly with regard to food categorization but also to the thresholds for two categories ("Ready-made and convenience foods and composite dishes" and "Fresh or dried pasta, rice and grains") and clearer definitions of "added sugars" and "non-sugar sweeteners". The results of the comparison of classification of foods in the 2023 model and the 2015 model are shown in Table A1.1 of Annex 1.

The second edition of the nutrient profile model (2023) is shown in Table 1.

Table 1. The NPM 2023

Category no.	Product category	Examples	Total fat (g)	Saturated fat (g)	Total sugars (g)	Added sugars (g)	Non-sugar sweeteners (g)	Sodium (g)	Energy (kcal)
1	Chocolate and sugar confectionery, energy bars, sweet toppings and desserts	Chocolate confectionery Sugar confectionery (including jellies and boiled sweets; chewing-gum and bubble gum; caramels; liquorice sweets, marzipan sweets) Granola and cereal-type bars Spreadable chocolate and other sweet sandwich toppings Nut butters. (e.g., peanut butter) Honey				0	0		
2	Cakes, sweet biscuits and pastries; other sweet bakery wares; and dry mixes for making such	Cookies/sweet biscuits Cakes and sponges Pies and pastries Baked and cooked desserts Pancakes, waffles and French toast Scones and soda bread Dry mixes for making such Tofu- and other plant-based desserts	3			0	0	0.1	
3	Savoury snacks	Crackers/savoury biscuits Nuts, seeds and kernels (including popcorn, nuts, peanuts and seeds (plain or seasoned with salt or flavoured) Potato, vegetable and grain chips Extruded snacks Savoury pretzels				0	0	0.1	
4	Beverages								
4.1	Juices	100% fruit and vegetable juices (including juices reconstituted from concentrate) Smoothies (including smoothies containing yogurt but in which yogurt is not the main ingredient)			0		0		
4.2	Dairy milk drinks	Dairy milks (both sweetened and unsweetened) Milkshakes and coffees containing dairy milk (in which the main constituent is dairy milk)	3			0	0		
4.3	Plant-based milks	Plant-based milks (both sweetened and unsweetened). Milkshakes and coffees containing plant-based milks (in which the main constituent is plant-based milk)	3			0	0		

Table 1. contd

Category no.	Product category	Examples	Total fat (g)	Saturated fat (g)	Total sugars (g)	Added sugars (g)	Non-sugar sweeteners (g)	Sodium (g)	Energy (kcal)
4.4	Energy drinks	Beverages containing caffeine or other stimulants such as guarana, taurine, lucuronolactone and vitamins				0	0		
4.5	Soft drinks, bottled waters and other drinks	Water-based flavoured drinks (carbonated and still) Fruit and vegetable nectars Waters (including mineral waters) Coffee, coffee substitutes, tea, herbal infusions and other hot cereal and grain beverages				0	0		
5	Edible ices	Dairy and plant-based ice creams Water-based ices (including sorbets) Frozen yogurts	3			0	0	0.1	
6	Breakfast cereals	Minimally processed breakfast cereals (such as steel-cut, rolled or instant oats for preparing oatmeal and muesli; includes porridge mix and hot instant cereals) Highly processed breakfast cereals (including shredded, flaked, puffed and extruded cereals, including granola.)	17		12.5			0.5	
7	Yogurt, sour milk, cream and similar foods	Yogurt and sour milks (including kefir; buttermilk; flavoured sour, fermented milk and drinking yogurt; fromage frais; cheese-based and other yogurt substitutes) Yogurt products containing additional ingredients (including fruit and muesli) Cream	3	1	12.5			0.1	
8	Cheese	Hard, medium and soft cheeses (unripened and ripened). Processed cheeses (including cheese spreads)	17					0.5	
9	Ready-made and convenience foods and composite dishes	Tinned composite foods (including meat balls in sauce and baked beans) Pasta, noodles and rice or grains with sauce or seasoned Pizza and pizza snacks Sandwiches and wraps (including hamburgers and hot dogs) Prepared salads Ready-to-eat meals composed of a combination of carbohydrate and either vegetable or meat, or all three combined Soups (ready-to eat, tinned and refrigerated and dry and concentrated)	17	6	12.5			0.5	225

Table 1. contd

Category no.	Product category	Examples	Total fat (g)	Saturated fat (g)	Total sugars (g)	Added sugars (g)	Non-sugar sweeteners (g)	Sodium (g)	Energy (kcal)
10	Butter, other fats and oils	Butter, butter blends, margarine and oil-based spreads Vegetable oils		21				0.5	
11	Bread, bread products and crisp breads	Sweet and raisin breads (including brioche) Leavened bread (including breads made with all types of cereal flours, e.g., white or whole-grain wheat, spelt and rye) Flatbreads	17		12.5			0.5	
12	Fresh or dried pasta, rice and grains	Fresh or dried pasta and noodles Rice and grains	17		12.5			0.5	
13	Fresh and frozen meat, poultry, fish and similar	Fresh and frozen meat, poultry, game and fish Eggs	17						
14	Processed meat, poultry, fish and similar	Processed fish and seafood products (including tinned, raw and non-heat-treated; e.g., tinned tuna, smoked fish and fish fingers) Processed meat, poultry, game and preparations (including tinned, raw, heat- and non-heat-treated, e.g., ham, burgers, sausages and breaded meat products)	17					0.5	
15	Fresh and frozen fruit, vegetables and legumes	Fresh and frozen fruit, vegetables without additional ingredients (including starch vegetables, roots and tubers) Fresh and frozen legumes without additional ingredients.				Permitted			
16	Processed fruit and vegetables	Tinned, pickled, dried, battered and breaded vegetables and legumes Tinned, dried and pickled fruits Fruit and vegetable pouches	3		12.5	0		0.5	
17	Savoury plant-based foods/ meat analogues	Tofu and tempeh Meat analogues (including “veggie” burgers)	17			0	0	0.5	
18	Sauces, dips and dressings	Stock cubes Cooking sauces (including pasta sauces) Dips and dipping sauces Salad dressings Condiments (including tomato ketchups)	17			0	0	0.5	

Marketing is prohibited of any product, regardless of category, that contains > 1 g per 100 g total fat in the form of industrially produced trans fatty acids.

Features of the NPM 2023

Scope

The scope of the 2023 model is essentially the same as that of the 2015 model; i.e., the model covers all foods and non-alcoholic drinks marketed to or for children aged 36 months or older. The following are therefore excluded from the model:

- drinks in which ≥ 0.5% of total energy is in the form of alcohol
- breast-milk substitutes and
- commercially available complementary foods for infants and young children, including follow-up formulas and "growing-up" milks.

For the sake of clarity, the updated model also explicitly excludes:

- foods for special dietary uses and
- food supplements.

For definitions of excluded products, see "Definitions of terms used in this updated model", below.

Product categories

The product categories in the second edition are the same as those in the 2015 model, with two additional categories, "Savoury plant-based foods/meat analogues" and "Plant-based milk drinks", because there is an increasing market for such products with growing interest in environmentally sustainable diets. Their addition also appeared to be sensible, as their nutritional content differs considerably from that of their animal-based equivalents.

In adapting the 2015 model, the WHO regional offices for the Western Pacific *(12)*, South East Asia *(13)* and Africa *(14)* added a category, "Plant-based foods/meat analogues", and the last two models divided the "Milk drink" category of the 2015 WHO-EUR0 model into "Dairy milk drinks" and "Plant-based milk drinks". The food categories in the updated WHO-EURO model are the same as those in a recent report from WHO on "Global sodium benchmarks" for various food categories *(20)*.

The 2023 model therefore contains a total of 22 categories (17 foods and five drinks) and examples of foods included within each category. A more detailed list of examples of the foods that are included and not included in each category is given in Table A1.2 in Annex 1. Table A1.2 also gives further indications of the food products within each category according to international customs tariff codes *(21)*, as in the 2015 model and in the food categorization system used by the Codex Alimentarius Commission to set food additive standards *(22)*, as in the model of the WHO Regional Office for South East Asia.

Nutrients and other components

The nutrients and other components included in the second edition are essentially the same as those in the 2015 model, i.e., energy, total fat, saturated fat, trans fatty acids, total sugars, added sugars, non-sugar sweeteners and sodium/salt. These are defined below.

The 2023 model maintains a threshold for energy for one category, "ready-made and convenience foods" as this category consists of many foods (and prepared meals) served in large quantities, indicating that an energy limit is necessary. Categories for which there are thresholds for total fat and total sugars do not require a threshold for energy.

The second edition also maintains thresholds for fat and/or saturated fat for 16 categories, in line with WHO's nutritional recommendations *(16)*.

The 2023 model further maintains a universal threshold for trans fatty acids; i.e., marketing of any product, regardless of category, that contains > 1 g per 100 g total fat in the form of industrially produced trans fatty acids is prohibited, in line with the WHO recommendation on trans fatty acid intake *(16)*. Countries that have enacted legislation to ban or virtually eliminate trans fatty acids from the food supply may choose to adopt threshold in line with their statutory limits.

The second edition maintains thresholds for total sugars and/or added sugars, for 18 categories. WHO's nutritional recommendations refer to free sugars rather than total or added sugars *(23)*. Free sugars are defined by WHO as monosaccharides (such as glucose or fructose) and disaccharides (such as sucrose or table sugar) added to foods by the manufacturer, cook or consumers in addition to sugars naturally present in honey, syrups, fruit juices and fruit concentrates They do not include naturally occurring sugars in milk, fruit and vegetables.

In revising the 2015 model, consideration was given to whether the thresholds should be for free sugars rather than for total or added sugars. It is, however, difficult to assess the free sugar content of a food or drink, and feedback from users of the model suggested that the thresholds should be for total and added sugars than free sugars. In any case, free sugar content is calculated from data on total sugars and added sugars. The 2023 model therefore provides total sugar thresholds for eight categories and added sugar thresholds for 10. As all the thresholds for added sugars are set at 0, it is only necessary to ascertain whether a product contains added sugars, rather than a specific amount, in order to decide whether it is suitable for marketing to children. Added sugar content is only rarely stated on nutrient declarations on food packets, although the presence of added sugars can be determined from the list of ingredients. Nevertheless, added sugars have many different names, including brown sugar, cane juice, corn syrup, dextrose, fructose, fruit nectars, glucose, high-fructose corn syrup, honey, lactose, malt syrup, maltose, maple syrup, molasses, raw sugar and sucrose.

The 2015 model set thresholds for non-sugar sweeteners in two beverage categories but in no food categories. The 2023 model includes a threshold (0 g/100 g) for non-sugar sweeteners for all categories, both food and beverages, where the added sugar threshold is set at 0, except for "Processed fruit and vegetables".

The thresholds for non-sugar sweeteners are in line with the draft WHO guideline on use of non-sugar sweeteners *(24)*. As for added sugars, it is only necessary to determine whether a product contains non-sugar sweeteners, rather than a specific amount, to decide whether it is suitable for marketing to children. This can be done by consulting the list of ingredients. Non-sugar sweeteners include intense sweeteners such as aspartame and low-calorie sweeteners such as xylitol.

The updated model maintains thresholds for sodium/salt, in line with WHO's nutritional recommendations *(25)*, for 14 categories.

Thresholds

An important difference from the 2015 model is that all categories (except "Fresh and frozen fruit and vegetables") in the 2023 model are assigned nutrient thresholds, in line with the principle that, in general, no food should pass or fail the model regardless of its nutrient composition. The thresholds for the 2015 model were based mainly on two published nutrient profile models used for marketing restrictions in Europe, a Danish and a Norwegian model. For the updated model, a more transparent, systematic method was used to set thresholds based on WHO's nutritional recommendations. This method is similar to that used by the WHO Regional Office for South-East Asia *(13)*. It involved converting the nutrient recommendations into reference intakes in grams for a diet of 2000 kcal/day and then calculating low, medium and high levels of nutrients as standard percentages of the reference intakes (Table 2). As there is no WHO recommendation for total sugars, free sugars were set at low, medium or high levels of total sugars. These levels are therefore conservative.

Table 2. Proposed thresholds for total fat, saturated fat, total sugars and sodium based on reference intakes

WHO recommendation *(16)*	**Total fat** 30% total energy	**Saturated fat** 10% total energy	**Free sugars** 10% total energy	**Sodium** 2 g/day
Reference intake (g/day)	66.67	22.22	50	2
Low: 5% of reference intake (g/100 g)[a]	3	1	2.5	0.1
Medium: 25% of reference intake (g/100 g)[a]	17	6	12.5	0.5
High: 95% of reference intake (g/100 g)[a]	63	21	47.5	1.9
Codex low food (g/100 g)[b]	3	1.5		0.12
Codex low drink (g/100 mL)	1	0.75		0.12
European Union low food (g/100 g)[c]	3	1.5		0.12
European Union low drink (g/100 mL)	1	0.75		0.12

[a]Reference 16
[b]Reference 26
[c]Reference 27

The choice between a no, low, medium or high threshold for a particular product category depended on:

- the other nutrients typically present in high amounts in that category. All else being equal, no or low thresholds were selected for products in the category that generally do not provide nutrients necessary for good health, such as dietary fibre, minerals and vitamins, and high or medium thresholds when they do.
- the energy density of foods in that category. All else being equal, higher thresholds were selected for foods that are very energy dense (e.g., "Butter, other fats and oils") than for products containing large amounts of water (such as Beverages and also "Yogurt, sour milk, cream and other similar foods").

Since publication of the WHO regional nutrient profile models, WHO has set global sodium benchmarks for different food categories *(20)*. We assessed whether those benchmarks could be used directly for setting sodium thresholds for the updated WHO-EURO model and found that they could not, because the benchmarks are for sub-categories within the updated model and not for the categories themselves. The thresholds proposed for sodium for the 2023 model are, however, aligned with the global benchmarks. The thresholds for the 2023 model and for the 2015 model are compared in Table A1.3 in the Annex.

How to use the NPM 2023

NPM 2023 (Table 1) is designed primarily for use by governments for the purposes of restricting food marketing to children. The definition of "marketing to children" should be established during the policy development process may differ according to the national context. WHO has defined marketing as "any form of commercial communication or message that is designed to, or has the effect of, increasing the recognition, appeal and/or consumption of particular products and services. It comprises anything that acts to advertise or otherwise promote a product or service" *(28)*.

A government or a food company should take the following steps when using the updated model to determine whether a food product may or may not be marketed to children.

1. Ensure that whether the product is covered by the nutrient profile model. See "Scope" above.
2. Identify the food category into which the product falls. In some cases, this will be clear from the name of the food and of the food category; in others, it may be necessary to refer to the "Examples" column. Further details of the foods that are included and not included in each category are shown in Table A1.2 in the Annex, which also lists international customs tariff code numbers and the code numbers for the system used by the Codex Alimentarius Commission to set food additive standards.
3. Once the appropriate food category has been identified, the nutritional content of the food product should be cross-checked against the thresholds. A food product must not exceed on a per 100 g/mL basis any of the relevant thresholds for that food product category if marketing is to be permitted. For example, in the case of "Breakfast cereals", a product must not exceed the criteria for total fat, trans fatty acids, total sugars or sodium.
4. The food products should, when possible, be assessed as sold or as reconstituted (if necessary) according to the manufacturer's instructions.
5. If marketing is considered for several products, e.g., in a restaurant meal (including quick service and takeaway meals), each item must meet the relevant nutrient criteria. Composite dishes such as burgers in a roll or ready-meals composed of rice and curry (if sold together) are included under "Ready-made and convenience foods and composite dishes".
6. Marketing may be permitted according to the national context if the product is a food that has a protected designation of origin or a protected geographical indication or is a guaranteed traditional speciality.

Definitions of terms used in the NPM 2023

Model components

"Energy" refers to the total chemical energy available in food and its macronutrient constituents (carbohydrates, fats, proteins) *(5)*.

"Total fat" refers to the total fat content of the food product, which may be composed of various concentrations of fatty acids in the three broad groupings of saturated fatty acids, monounsaturated fatty acids and polyunsaturated fatty acids *(5)*.

"Saturated fat" refers to the major saturated fatty acids in the diet, namely C14, C16 and C18, except in the case of milk and coconut oil, in which saturated fatty acids are C4–C18 *(5)*.

Industrially produced trans fatty acids are the major trans fatty acids in the diet. They are typically isomers of 18:1 trans derived from partial hydrogenation of vegetable oils, a technique that produces semi-solid fats for use in commercial baking and frying, margarines and food manufacture *(5)*.

"Total sugars" refers to the total sugar content of the food product, which may be composed of intrinsic sugars incorporated in the structure of intact fruit and vegetables, sugars from milk (lactose and galactose) and all additional monosaccharides and disaccharides added to foods by the manufacturer, cook or consumer, plus sugars naturally present in honey, syrups and fruit juices *(5)*.

"Added sugars" are defined here as all monosaccharides and disaccharides added to foods and beverages by the manufacturer, cook or consumer during processing or preparation, including ingredients containing sugars used for their sweetening properties, such as dried fruit and concentrated juice *(5)*. "No added sugars" is therefore the same as the claim of "No added sugars" under the Codex Alimentarius Commission Guidelines for Use of Nutrition and Health Claims *(26)*[1].

Non-sugar sweeteners are food additives (other than mono or disaccharide sugars) that impart a sweet taste to a food *(5)*. Non-sugar sweeteners permitted for use by the Codex Alimentarius Commission under specified circumstances are listed in Table 3. Note that different countries have different lists of permitted non-sugar sweeteners.

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1 I.e.,

(a) No sugars of any type have been added to the food (e.g., sucrose, glucose, honey, molasses, corn syrup).

(b) The food contains no ingredients that contain sugars as an ingredient (e.g., jams, jellies, sweetened chocolate, sweetened fruit pieces).

(c) The food contains no ingredients containing sugars that substitute for added sugars (e.g., nonreconstituted concentrated fruit juice, dried fruit paste).

(d) The sugar content of the food itself has not been increased above the amount contributed by the ingredients by some other means (e.g., use of enzymes to hydrolyse starches to release sugars).

Table 3. Non-sugar sweeteners permitted for use by the Codex Alimentarius Commission

Non-sugar sweetener	International Numbering System (INS)
Acesulfame potassium	INS 950
Advantame	INS 969
Alitame	INS 956
Aspartame	INS 951
Aspartame-acesulfame salt	INS 962
Cyclamates • Cyclamic acid • Calcium cyclamate • Sodium cyclamate	INS 952(i) INS 952(ii) INS 952(iv)
Erythritol	INS 968
Isomalt (hydrogenated isomaltulose)	INS 953
Lactitol	INS 966
Maltitol	INS 965(i)
Maltitol syrup	INS 965(ii)
Mannitol	INS 421
Neotame	INS 961
Polyethylene glycol	INS 1521
Polyglycitol syrup	INS 964
Sorbitol	INS 420(i)
Sorbitol syrup	INS 420(ii)
Saccharins • Saccharin • Calcium saccharin • Potassium saccharin • Sodium saccharin	INS 954(i) INS 954(ii) INS 954(iii) INS 954(iv)
Steviol glycosides • Steviol glycosides from Stevia rebaudiana Bertoni (steviol glycosides from Stevia) • Steviol glycosides from fermentation • Enzymatically produced steviol glycosides • Glucosylated steviol glycosides	INS 960a INS 960b INS 960c INS 960d
Sucralose (trichlorogalactosucrose)	INS 955
Thaumatin	INS 957
Xylitol	INS 967

Source: reference 25

The NPM 2023 provides thresholds for sodium rather than salt. The 2015 model provided thresholds for salt, with 1 g of sodium equivalent to 2.5 g of salt *(20, 25)*.

Products outside of the scope of the model

A breast-milk substitute is a product "specially manufactured to satisfy, by itself, the nutritional requirements of infants during the first months of life up to the introduction of appropriate complementary feeding" *(29)*.

Food products for infants and young children are defined in a nutrient profile model for regulation of their marketing, developed by the WHO Regional Office for Europe and published in 2022 as "a manufactured food or drink other than a breast-milk substitute which is marketed as suitable for feeding infants (less than 12 months old) and young children (12 to 36 months old)." *(30)*.

A food product for infants and young children is considered to be marketed as being suitable for this age group if:

- the words "baby", "infant", "toddler" or "young child" appear on the label;
- are recommended for introduction at an age of < 3 years; and not < an age of 6 months.
- the label has an image of a child who appears to be younger than 3 years of age or is being fed from a bottle or if the food is in any other way presented as being suitable for children under the age of 3 years.

"Follow-up formula" is a food intended for use as a liquid part of the weaning diet for infants from 6 months and for young children *(31)*.

"Foods for special dietary uses" are foods that are specially processed or formulated to satisfy particular dietary requirements due to a particular physical or physiological condition and/or specific disease or disorder and which are presented as such *(32)*.

"Food supplements" are defined as sources of concentrated forms of nutrients alone or in combinations, marketed in forms such as capsules, tablets, powders and solutions, that are designed to be taken in measured small quantities but are not in a conventional food form and the purpose of which is to supplement the intake of vitamins and/or minerals or other nutrients in the normal diet *(33)*.

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Annex 1. Supplementary tables

Table A1.1. Results of testing the draft NPM 2023 model compared with the 2015 model

Product category	No. of foods in combined database	% permitted under 2015 model	% permitted under draft NPM 2023
Chocolate and sugar confectionery	6 469	0	1
Cakes and sweet biscuits	10 810	0	0
Savoury snacks	5 003	1	2
Beverages			
Juices	2 865	0	0
Dairy milk drinks	1 722	36	37
Plant-based milk	486	32	35
Energy drinks	603	0	0
Soft drinks, bottled waters and other drinks	7 303	11	11
Edible ices	3 771	0	1
Breakfast cereals	2 991	21	18
Yogurts, sour milk and cream	6 559	19	25
Cheese[a]	6 902	15	11
Ready-made and convenience foods[b]	13 309	53	66
Butter, other fats and oils	1 370	56	55
Bread, bread products and crisp breads	2 652	48	57
Fresh or dried pasta, rice and grains[c]	2 598	88	89
Fresh and frozen meat, poultry and similar	2 960	100	92
Processed meat, poultry, fish and similar[d]	11 266	37	20
Fresh and frozen fruit and vegetables	386	100	100
Processed fruit and vegetables	10 717	38	39
Savoury plant-based foods/ meat analogues	980	No separate category	38
Sauces, dips and dressings	6 854	10	13
Total	108 578	24	27

[a] No sugar threshold, as originally proposed before testing
[b] Energy threshold restored after testing
[c] Total fat threshold changed from low to medium post testing
[d] No sugar threshold as originally proposed before testing.

Table A1.2. Food categories in the NPM 2023

Model category	Short version Foods included	Excluded foods	Long version [Sub-categories in bold are sub-categories for the global sodium benchmarks]	Inter-national Custom Tariff code	Codex GSFA food category system
1. Chocolate and sugar confectionery, energy bars and sweet toppings and desserts	Chocolate confectionery Sugar confectionery (including jellies and boiled sweets; chewing-gum and bubble gum; caramels; liquorice sweets, marzipan sweets). Granola and cereal-type bars. Spreadable chocolate and other sweet sandwich toppings Nut butters. (e.g., peanut butter). Honey Table sugar	Cakes and biscuits covered in chocolate Choco-late-fla-voured breakfast cereals Jams and marmalades Sweet deserts	1a. Chocolate confectionery. (Includes white chocolate confectionery. Excludes cakes and pastries and other baked goods flavoured with or covered in chocolate and chocolate flavoured breakfast cereals (see 2 and 6) 1b. Sugar confectionery. (Includes jellies and boiled sweets; chewing gum and bubble gum; caramels; liquorice sweets; marzipan sweets). 1c. Granola and cereal type bars. (Granola bars (plain and coated), fruit filled bars and muf-fin-type bars) 1d. Spreadable chocolate and other sweet sandwich toppings. (Excludes jams and marmalades (see 16.k)) 1e. Nut butters. (E.g., peanut, almond, cashew and soy). 1f. Honey 1g. Table sugar	04.09; some of 17.01; 17.04; 18.06; some of 19.05; 20.06; some of 20.08; some of 21.06	5.1.1, 5.1.2, 5.1.3, 5.1.4, 5.1.5, 5.2, 5.3, 5.4; some of 11
2. Cakes,sweet biscuits and pastries; other sweet bakery wares; and dry mixes for making such	Cookies/sweet biscuits Sweet pretzels Cakes and sponges Pies and pastries Baked and cooked desserts Pancakes, waffles and French toast Scones and soda bread Dry mixes for making such. Tofu-based and other plant-based desserts	Bread and bread products	2a. Cookies/sweet biscuits. (Shelf-stable, frozen and refrigerated products. Filled and unfilled sweet cookies, biscuits, tea biscuits and dough. Excludes crackers/savoury biscuits (see 3a). Excludes dry mixes (see 2g).) 2a1 Sweet pretzels (Includes chocolate covered pretzels) 2b. Cakes and sponges. (Shelf-stable, frozen and refrigerated products. Cakes, snack cakes, doughnuts (yeast and cake types), brownies and squares, muffins and pastry dough. Excludes dry mixes (see 2g)) 2c. Pies and pastries. (Shelf-stable, frozen and refrigerated products. Pies, fruit crisps, pastries, toaster pastries with fruit or other fillings, Danish pastries, croissants, cinnamon rolls and pastry dough. Excludes dry mixes (see 2g)) 2d. Baked and cooked desserts. (Shelf-stable, frozen and refrigerated products. Puddings, custards, crème brûlée, flans and cheesecakes. Includes non-baked cheesecakes. Excludes dry mixes (see 2g)) 2e. Pancakes, waffles and French toast. (Shelf-stable, frozen and refrigerated products. Includes crumpets. Excludes dry mixes (see 2g)) 2f. Scones and soda bread. (Shelf-stable, frozen and refrigerated products. Scones (including US biscuits), soda bread and dough) 2g. Dry mixes for making cakes, sweet biscuits, pastries and other sweet bakery wares (Dry mixes for cookies/sweet biscuits, cakes, sponges, pies, pastries, baked and cooked desserts, pancakes, waffles, French toast, scones and soda bread. Excludes ready-made products (see 2a–2f)).	19.01.20; 19.05.20; 19.05.31; 19.05.32; some of 19.05.90	7.2; some of 15.1

Table A1.2. contd

Model category	Short version Foods included	Excluded foods	Long version [Sub-categories in bold are sub-categories for the global sodium benchmarks]	International Custom Tariff code	Codex GSFA food category system
3. Savoury snacks	Crackers/savoury biscuits Nuts, seeds and kernels (including popcorn, nuts, peanuts and seeds (plain or seasoned with salt or flavoured)) Potato, vegetable and grain chips Extruded snacks Savoury pretzels		3a. Crackers/savoury biscuits. (Plain (i.e., flavoured only with salt) or flavoured crackers, sandwich crackers, puffed cakes (e.g., cheese crackers, soda crackers and rice cakes). Includes dry breads such as Melba toast, rusks, breadsticks, pita or baguette chips and other crisp breads) 3b. Nuts, seeds and kernels (Includes popcorn, nuts, peanuts and seeds (plain or seasoned with salt or flavoured)) 3c. Potato, vegetable and grain chips. (Chips/crisps made of potato, vegetables and grains (e.g., corn, wheat, multigrain and rice). Includes all flavours (including salt and vinegar flavours). Includes reformed chips/crisps.) 3d. Extruded snacks. (Sheeted, reformed, puffed or pelleted snacks made from starch-rich materials (e.g., corn, maize, wheat, rice or potato flour) or legume flours. Includes all flavours (including salt and vinegar flavours). Excludes chips (see 3c) and pretzels (see 3e)). 3e. Savoury pretzels. (Salted hard pretzels). Includes savoury flavoured, filled and unfilled pretzel snacks (e.g., pretzels filled with cheese).	08.01; 08.02; 19.04.10, 19.04.20; some of: 19.05; 20.08.11; 20.08.19; 20.08.99	15.1, 15.2, 15.3
4. Beverages					
4a) Juices	100% fruit and vegetable juices (including juices reconstituted from concentrate) Smoothies (including smoothies containing yogurt but in which yogurt is not the main ingredient)	Fruit and vegetable nectars	4a) a. 100% fruit and vegetable juices (Includes juices reconstituted from concentrate). 4a) b. Smoothies (Includes smoothies containing yogurt but in which yogurt is not the main ingredient).	20.09	14.1.2; 14.1.3
4b) i Dairy milk drinks	Dairy milks (both sweetened and unsweetened). Milkshakes and coffees containing dairy milk (in which the main constituent is dairy milk)	Cream	4bi) a. Dairy milks. (Both sweetened and unsweetened. Excludes cream). 4bi) b. Milkshakes and coffees containing dairy milk. (in which the main constituent is dairy milk).	Some of 04.01; some of 04.02; some of 19.01.90; some of 22.02.99	1.1

Table A1.2. contd

Model category	Short version Foods included	Excluded foods	Long version [Sub-categories in bold are sub-categories for the global sodium benchmarks]	International Custom Tariff code	Codex GSFA food category system
4b) ii Plant-based milk drinks	Plant-based milks (both sweetened and unsweetened). Milkshakes and coffees containing plant-based milks (in which the main constituent is plant-based milk)		4bii) a. Plant-based milks. (Both sweetened and unsweetened). 4bii) b. Milkshakes and coffees containing plant-based milk (In which the main constituent is plant-based milk).	Some of 22.02.99	14.1.5; 6.8.1
4c) Energy drinks	Beverages containing caffeine or other stimulants such as guarana, taurine, lucuronolactone and vitamins	Coffees and teas	4c) Beverages containing caffeine or other stimulants such as guarana, taurine, lucuronolactone and vitamins (Includes both sugar containing and sugar free versions. Excludes coffees and teas).	Some of 22.0; some of 21.01	Some of 14.1.4; 14.1.5
4d) Soft drinks, bottled waters and other drinks	Water-based flavoured drinks (carbonated and still) Fruit and vegetable nectars Waters (including mineral waters) Coffee, coffee substitutes, tea, herbal infusions and other hot cereal and grain beverages	Energy drinks	4d) a. Water-based flavoured drinks. (Carbonated and still, concentrated and ready to drink. Includes sports drinks. Excludes energy drinks). 4d) b. Fruit and vegetable nectars (Concentrated and ready to drink) 4d) c. Waters. (Carbonated and still. Includes mineral waters). 4d) d. Coffee, coffee substitutes, tea, herbal infusions and other hot cereal and grain beverages. (Concentrated and ready to drink. Includes cocoa and chocolate flavoured drinks in which the main constituent is not a dairy milk or a plant-based milk (see 4b)).	22.01; some of 22.02	14.1.1; 14.1.4
5. Edible ices	Dairy and plant-based ice creams Water-based ices (including sorbets) Frozen yogurts		5a) Dairy and plant-based ice creams. 5b) Water-based ices. (Includes sorbets) 5c) Frozen yogurts.	21.05	3.0; some of 1.7
6. Breakfast cereals	Minimally processed breakfast cereals (such as steel-cut, rolled or instant oats for preparing oatmeal and muesli, Includes porridge mix and hot instant cereals) Highly processed breakfast cereals (including shredded, flaked, puffed or extruded cereals, including granola.)		6a. Minimally processed breakfast cereals. (Prepared, ready-made and dry-mixes, such as steel-cut, rolled or instant oats for preparing oatmeal and muesli (i.e., made with oats and a mixture of unsalted nuts and seeds and/or dried fruit) with no added sodium, fat or sugars (or non-sugar sweeteners). May or may not require cooking. Includes porridge mix and hot instant cereals. Excludes highly processed cereals including granola (see 6b)0. 6b. Highly processed breakfast cereals (Highly processed, ready-to-eat breakfast cereals including shredded, flaked, puffed or extruded cereals and cereals with added nutrients such as sodium, fat, sugars (or non-sugar sweeteners), fibre or various vitamins and minerals. Includes granola).	19.04.10; 19.04.20; 10.04	6.1; 6.3

Table A1.2. contd

Model category	Short version Foods included	Excluded foods	Long version [Sub-categories in bold are sub-categories for the global sodium benchmarks]	International Custom Tariff code	Codex GSFA food category system
7. Yogurt, sour milk, cream and similar foods	Yogurt and sour milks (including kefir; buttermilk; flavoured sour, fermented milk and drinking yogurt; fromage frais; cheese based and other yogurt substitutes) Yogurt products containing additional ingredients (including fruit and muesli) Cream	Frozen yogurts	7a. Yogurt and sour milks. (Includes kefir; buttermilk; flavoured sour, fermented milk and drinking yogurt; fromage frais; cheese based and other yogurt substitutes). 7b. Yogurt products containing additional ingredients (including fruit and muesli). 7c. Cream.	Some of 04.02; 04.03; 04.04; 19.01.10; some of 21.06	1.2; 1.3; 1.4; some of 1.7
8. Cheese	Hard, medium and soft cheeses (unripened and ripened). Processed cheeses (including cheese spreads)		8a. Fresh unripened cheese. (Unripened cheese e.g., cream cheese, mozzarella, ricotta and cottage cheese). 8b. Soft-to-medium ripened cheese (All soft to medium firm textured ripened cheese, often with a relatively short ripening period e.g., Emmental, Colby, Monterey Jack, young Gouda and mild Cheddar). 8c. Semi-hard ripened cheese. (All semi-hard to hard-textured ripened cheese, often with a relatively long ripening period, e.g., matured Gouda, matured Cheddar, Gruyere and Provolone). 8d. Extra-hard ripened cheese. (All extra-hard-textured ripened cheese, e.g., Parmesan, Romano and Pecorino). 8e. Mould ripened cheese, white and red. (All white and red mould cheese such as white and red surface-mould cheese e.g., Brie and Munster). 8f. Mould ripened cheese, blue (All blue mould cheese e.g., Roquefort and Gorgonzola). 8g. Processed cheese. (All processed and melt cheese, cheese analogues including plant-based, dairy-free cheese and spreads). 8h. Brine-stored cheese (Cheese stored in brine (e.g., feta and halloumi))	4.06	1.6

Table A1.2. contd

Model category	Short version Foods included	Excluded foods	Long version [Sub-categories in bold are sub-categories for the global sodium benchmarks]	International Custom Tariff code	Codex GSFA food category system
9. Ready-made and convenience foods and composite dishes	Tinned composite foods (including meat balls in sauce and baked beans) Pasta, noodles and rice or grains with sauce or seasoned Pizza and pizza snacks Sandwiches and wraps (including hamburgers and hot dogs) Prepared salads Ready-to-eat meals composed of a combination of carbohydrate and either vegetable or meat, or all three combined Soups (ready-to eat, tinned and refrigerated and dry and concentrated)	Tinned fruit, vegetables and legumes (without sauce); tinned fish and meat (without sauce)	9a. Tinned foods. (Shelf-stable vegetarian and meat chilli, stew, meatballs in sauce and curries; and baked beans and refried beans. Excludes tinned fruit, vegetables and legumes (see 16a and 16i)). 9bi. Pasta, noodles and rice or grains with sauce or seasoned (prepared) (Shelf-stable, frozen and refrigerated products. Ready-to-serve pasta, noodles and rice or grain mixes with sauce or seasonings (e.g., macaroni with cheese sauce, noodles in tomato sauce and teriyaki noodles)). 9bii. Pasta, noodles and rice or grains with sauce or seasoned (dry-mix, concentrated). (Dry-mixes for shelf-stable pasta, noodles and rice or grain mixes with sauce or seasonings sold in concentrated form (e.g., macaroni with cheese sauce, noodles in tomato sauce and teriyaki noodles). Includes instant noodle with soup or seasonings.) 9c. Pizza and pizza snacks. (Frozen and refrigerated pizza, pizza snacks and calzones. Excludes sandwiches and wraps (see 9d)). 9d. Sandwiches and wraps. (Frozen and refrigerated sandwiches, wraps, burritos, tacos, enchiladas, hamburgers and hot dogs). 9e. Prepared salads. (Frozen and refrigerated prepared salads (e.g., potato salad, coleslaw, pasta salad, vegetable salad, bean salad, couscous and rice salad)). 9f. Ready-to-eat meals composed of a combination of carbohydrate and either vegetable or meat or all three combined. (Frozen and refrigerated dinner entrées, meal sides, meal centres and appetizers. 9gi. Soups (ready-to serve, tinned and refrigerated soups). (Tinned and refrigerated, ready-to serve broth and broth-based soup. Excludes ready-made noodles with sauce (see 9bi), dry soups (9gii) and bouillon and soup stock (not concentrated) (see 18ai)). 9gii. Soups (dry soup only) (concentrated). (Dried broth and broth-based soup (concentrated). Excludes instant noodles with soup or seasonings (see 9bii), ready-to-serve soups (see 9gi) and bouillon and soup stock (concentrated) (see 18aii)).	Some of 16; 19.02.20; some of 19.05; some of 20.05; 21.04	12.5, 12.7 15.3, 16
10. Butter and other fats and oils	Butter, butter blends, margarine and oil-based spreads Vegetable oils		10a. Butter, butter blends, margarine and oil-based spreads. (Flavoured butter, butter blends and margarine. Includes vegetable oil spreads such as olive oil spreads). 10b. Vegetable oils. (E.g., olive oil, canola oil and sunflower oil)	04.05; 15	2.1; 2.2

Table A1.2. contd

Model category	Short version Foods included	Excluded foods	Long version [Sub-categories in bold are sub-categories for the global sodium benchmarks]	International Custom Tariff code	Codex GSFA food category system
11. Bread, bread products and crisp breads	Sweet and raisin breads (including brioche) Leavened bread (including breads made with all types of cereal flours (e.g., white or whole grain wheat, spelt and rye). Flatbreads	Pancakes	11a. Sweet and raisin breads. (All types of sweetened bread (e.g., brioche, sweet buns and raisin breads/toast – i.e., breads with dried fruit and/or nut inclusions). Includes refrigerated and frozen dough.) 11b. Leavened bread. (All types of yeast-leavened breads, including sourdough breads. Includes breads made with all types of cereal flours (e.g., white or whole grain wheat, spelt and rye). Includes all types of shapes and baking traditions (e.g., pan baked, hearth baked, large loafs, baguettes, rolls and buns). Includes all types of artisanal, pre-packaged sliced breads, par-baked bread and rolls, bagels, English muffins, pizza crusts and diet or low-calorie breads. Includes breads with and without additions (e.g., herbs, nuts, olives, onion and cheese). Also includes refrigerated and frozen dough. Excludes dough for cookies (see 2a), cakes and sponges (see 2b), pastries (see 2c) and scones (see 2f). Excludes flatbreads that are leavened such as naan (see 11c)) 11c. Flatbreads. (All types of leavened and non-leavened flat breads. Freshly baked, refrigerated and shelf-stable plain (i.e., flavoured only with salt) or flavoured tortillas, wraps, pita, Greek flatbreads or naan. Includes refrigerated and frozen dough. Excludes pancakes (see 2e)).	19.05.10; 19.05.40; 19.05.90	7.1
12. Fresh or dried pasta, noodles, rice and grains	Fresh or dried pasta and noodles Rice and grains	Filled pasta and pasta in sauce	12a. Fresh or dried pasta and noodles. (Excludes filled pasta and pasta in sauce (see 9b) 12b. Rice and grains	10; some of 11; some of 19.02	6.4.1; 6.4.2
13. Fresh and frozen meat, poultry, fish and similar	Fresh and frozen meat, poultry, game, fish and similar Eggs		13a. Fresh and frozen meat, poultry, game, fish and similar. 13b. Eggs.	Some of 02; some of 03 03; 04.07	8.1; 9.1; 10.1

Table A1.2. contd

Model category	Short version Foods included	Excluded foods	Long version [Sub-categories in bold are sub-categories for the global sodium benchmarks]	International Custom Tariff code	Codex GSFA food category system
14. Processed meat, poultry, fish and similar	Processed fish and seafood products (including tinned, raw and non-heat treated; e.g., tinned tuna, smoked fish and fish fingers) Processed meat and products and preparations (including tinned, raw, heat and non-heat treated, e.g., ham, burgers, sausages and breaded meat products)		14a. Tinned fish. (Tinned tuna, tinned salmon, water and oil packed fish, sauce packed fish, fish/seafood salad and shellfish (e.g., sardines, mackerel, shrimp, crab, clams and smoked oysters). Includes retort packed products. Excludes tinned anchovies (see 14c)) 14b. Processed fish and seafood products, raw. (Unprepared fish and seafood products, cakes and burgers; and seasoned (with seasoning) breaded, battered and stuffed fish. Includes restructured, simulated or imitation seafoods such as surimi. Also includes fish and seafood-based mousse, spread and dips.) 14c. Processed fish and seafood products, non-heat-treated. (Fish and seafood products preserved with non-heat methods, such as brining, fermenting and air drying (e.g., smoked fish, kippered fish, salmon jerky, anchovies and dried fish)). 14d. Raw meat products and preparations. (Unprepared meat products and burgers and fresh sausages. Includes marinated, flavoured, moisture-enhanced and breaded meat products) 14ei. Whole muscle meat products, heat treated (frozen and tinned products). (Frozen and tinned whole muscle (e.g., beef, lamb, chicken and turkey)). 14eii. Whole muscle meat products, heat treated (refrigerated products). (Refrigerated whole muscle (e.g., beef, lamb, chicken and turkey)). 14f. Whole muscle meat products, non-heat preservation. Air-dried, cured, entire meat pieces (e.g., Parma and Serrano ham). Brined meat products (e.g., pastrami and bacon)). 14g. Comminuted meat products, heat treated (cooked). (Cooked sausages (including hot-dogs), cooked meatloaf balls, corned beef, luncheon meats and pâté. Includes tinned sausages and luncheon meats). 14h. Comminuted meat products, non-heat preservation. (Air-dried, cured and/or fermented sausages (e.g., salami, jerky and biltong)).	02.10; some of 03; some of 16	8.2, 8.3, 8.4, 9.2, 9.3, 9.4
15. Fresh and frozen fruit, vegetables and legumes	Fresh and frozen fruit, vegetables (including starchy vegetables, roots and tubers) Fresh and frozen legumes Mushrooms	Dried fruit, vegetables, mushrooms and legumes	15a. Fresh fruit, vegetables and legumes. (Includes starchy vegetables, roots and tubers). 15b. Frozen fruit, vegetables and legumes. (Includes starchy vegetables, roots and tubers). 15c. Mushrooms	Some of 07; some of 08	4.1.1, 4.2.1

Table A1.2. contd

Model category	Short version Foods included	Excluded foods	Long version [Sub-categories in bold are sub-categories for the global sodium benchmarks]	International Custom Tariff code	Codex GSFA food category system
16. Processed fruit, vegetables and legumes	Tinned, pickled, dried, battered and breaded, vegetables and legumes Tinned, dried and pickled fruits Fruit and vegetable pouches Jams and marmalades		16a. Tinned vegetables and legumes (Tinned vegetables and legumes (e.g., potatoes, tomatoes, corn, peas, green beans, mushrooms, mixed vegetables, beets [plain and pickled], kidney beans, chickpeas, lentils and bean salads)). 16b. Pickled vegetables (Shelf-stable sour pickled vegetables (e.g., cucumbers, onions, peppers and sauerkraut) and shelf-stable sweet pickled vegetables (e.g., cucumbers, onions,). 16c. Olives and sun-dried tomatoes (Shelf-stable unstuffed and stuffed olives, tapenade and sun-dried tomatoes.) 16e. Frozen vegetables and legumes in sauce or seasoned (Frozen vegetables and legumes in sauce and/or seasoning. Excludes frozen French fries (see 16f) and other frozen vegetables and legumes without added salt (see 15) 16f. Frozen potatoes and other potato products (ready-to-eat) (Plain (i.e., flavoured only with salt) and seasoned French fries/chips, sweet potato fries, hash browns and potato patties. Excludes potatoes without added salt (see 15)). 16g. Battered or breaded vegetables. (Fried or baked vegetables (e.g., onion rings, fried jalapeños and fried green beans)). 16h. Dried vegetables, legumes and mushrooms (e.g., dried pulses) 16i. Tinned and bottled fruits (whole and pureed; e.g., whole peaches, fruit salad and apple-sauce) 16j. Pickled fruits 16k. Dried fruits (Includes raisins, sultanas, currants, dried berries (e.g., cranberries), dried stone fruits (e.g., prunes, apricot and dates); and candied peel) 16l. Jams and marmalades 16m. Frozen fruits in sauce or with added sugar 16n. Fruit and vegetable pouches	07.10; 07.11; 07.12; 07.13; some of 08.03; some of 08.04; some of 08.05; some of 08.06; 08.11, 08.12, 08.13 and 08.14; 20.01; 20.02; 20.03; 20.04; 20.05; 20.06; 20.07; 20.08.20, 20.08.30, 20.08.40, 20.08.50, 20.08.60, 20.08.70, 20.08.80; 20.08.93; 20.08.97; 20.08.99	4.1.2; 4.2.2
17. Plant-based food/meat analogues	Tofu and tempeh Meat analogues (including "veggie burgers")	Tofu based deserts be	17a. Tofu and tempeh (Plain, savoury, marinated and seasoned tofu and tempeh. Excludes tofu based deserts (see 1)) 17b. Meat analogues (Frozen and refrigerated meat analogues (e.g., "veggie patties", burgers, "veggie dogs", meatballs and deli-style slices). Excludes dairy-free cheese (see 8g))	21.06.90	16

Table A1.2. contd

Model category	Short version Foods included	Excluded foods	Long version [Sub-categories in bold are sub-categories for the global sodium benchmarks]	International Custom Tariff code	Codex GSFA food category system
18. Sauces, dips and dressings	Stock cubes Cooking sauces (including pasta sauces) Dips and dipping sauces Salad dressings Condiments (including tomato ketchups)		18ai. Bouillon and soup stock (not concentrated) (Liquid broth and soup stock. Includes gravy stock. Excludes soups (ready-to serve, tinned and refrigerated soups) (see 9gi).) 18aii. Bouillon and soup stock (concentrated) (Bouillon cubes and soup stock powders. Includes gravy stock. Excludes concentrated, dry soups (see 9gii)). 18b. Cooking sauces including pasta sauces and tomato sauces (not concentrated) (All cooking sauces (e.g., pasta sauce, curry and Mexican). These are major characterizing components of a meal and are designed to be added to foods during preparation, rather than at the table. Also includes gravies and finishing sauce products which are designed to be added to food upon serving or as food finishes cooking. Products in this category do not require reconstitution or the addition of liquids. Excludes condiments including pesto (see 18e), soy sauce and fish sauce (see 18f), other Asian-style cooking sauces (see 18g) and marinades and thick pastes (see 18h).) 18c. Dips and dipping sauces (All dips (e.g., salsa, chutney and guacamole, bean-based dips such as hummus and sweet sauces such as plum sauce, cherry sauce and pineapple sauce). Excludes cream- and cheese-based dips (see 18d) and fish and seafood-based mousse, spread and dips (see 14b) 18d. Emulsion-based dips, sauces and dressings (Cream or cheese dips and sauces, standardized salad dressing (including mayonnaise-based dressing, refrigerated and shelf-stable oil and vinegar-based dressings and creamy dressings) and mayonnaise. Includes mayo-type spreads. Includes low-fat and fat-free versions. 18e. Condiments (Tomato ketchup, brown sauce (e.g., BBQ sauce, Worcestershire sauce, steak sauce and curry-flavoured sauces), chilli sauce including Sriracha chilli sauce, sweet chilli sauce and mustard. Also includes pesto. 18f. Soy sauce and fish sauce (Soy sauce, fish sauce and other fermented sauces.) 18g. Other Asian-style sauces (Asian-style sauces and condiments (e.g., teriyaki, black bean, hoisin, stir-fry, duck and oyster sauces). Excludes sweet sauces (see 18c) and chilli sauce including Sriracha chilli sauce and sweet chilli sauce (see 18e) and soy sauce and fish sauce (see 18f)). 18h. Marinades and thick pastes (Shelf-stable marinades and thick pastes such as curry pastes (e.g., Thai and Indian).)	21.03	12.6; 12.9.2

GSFA, Codex General Standard for Food Additives

Table A1.3. Thresholds for the NPM 2023 compared with the thresholds of the 2015 model.

Product categories	Model	Total Fat (g)	Saturated fat (g)	Total sugars (g)	Added sugars (g)	Non-sugar sweeteners (g)	Sodium (g)	Energy (kcal)
Chocolate and sugar confectionery	2023				0	0		
	2015				(Not permitted)			
Cakes and sweet biscuits	2023	3			0	0	0.1	
	2015				(Not permitted)			
Savoury snacks	2023				0	0	0.1	
	2015				0		0.04	
Beverages	2023							
	2015							
Juices	2023			0		0		
	2015				(Not permitted)			
Dairy milk drinks	2023	3			0	0		
	2015	2.5			0	0		
Plant-based milk	2023	3			0	0		
	2015				(Counted as milk drinks)			
Energy drinks	2023				0	0		
	2015				(Not permitted)			
Other drinks	2023				0	0		
	2015				0	0		
Edible ices	2023	3			0	0	0.1	
	2015				(Not permitted)			
Breakfast cereals	2023	17		12.5			0.5	
	2015	10		15			0.64	
Yogurts, sour milk and cream	2023	3	1	12.5			0.1	
	2015	2.5	2	10			0.08	
Cheese	2023	17					0.5	
	2015	20					0.52	
Ready-made and convenience foods	2023	17	6	12.5			0.5	225
	2015	10	4	10			0.4	225
Butter, other fats and oils	2023		21				0.5	
	2015		20				0.52	
Bread, bread products and crisp breads	2023	17		12.5			0.5	
	2015	10		10			0.48	
Fresh or dried pasta, rice and grains	2023	17		12.5			0.5	
	2015	10		10			0.48	
Fresh and frozen meat, poultry, fish and similar	2023	17						
	2015				(Permitted)			
Processed meat, poultry, fish and similar	2023	17					0.5	
	2015	20					0.68	
Fresh and frozen fruit and vegetables	2023				(Permitted)			
	2015				(Permitted)			

Table A1.3. contd

Product categories	Model	Total Fat (g)	Saturated fat (g)	Total sugars (g)	Added sugars (g)	Non-sugar sweeteners (g)	Sodium (g)	Energy (kcal)
Processed fruit and vegetables	2023	3		12.5	0		0.5	
	2015	5		10	0		0.4	
Savoury plant-based foods/ meat analogues	2023	17			0	0	0.5	
	2015	(No separate category)						
Sauces, dips and dressings	2023	17			0	0	0.5	
	2015	10			0		0.4	

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Document number:
WHO/EURO:2023-6894-46660-68492

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