



EUROPEAN COMMISSION
HEALTH AND CONSUMERS DIRECTORATE-GENERAL

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**WORKING DOCUMENT ON
THE SETTING OF NUTRIENT PROFILES**

Prepared by the Commission services

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1. INTRODUCTION

Regulation (EC) 1924/2006 foresees the setting of nutrient profiles, via the regulatory committee procedure with scrutiny by January 2009.

Following the release of the EFSA opinion, Member States commented a working paper of DG Health and Consumers services, which was laying down the initial options to consider for the setting of nutrient profiles, notably on the system of nutrient profile and on exemptions for certain foods to comply with nutrient profiles. Some written comments were also received with detailed positions on every issue.

The same working document was discussed on 8 July 2008 in meeting of a Working Group of the Advisory group on the food chain and animal and plant health and comments on the first options for the setting of nutrient profiles laid down were collected.

The present working document proposes advanced options for the setting of nutrient profiles that take account of these comments.

2. EXEMPTIONS

Exemptions/derogations from the requirement to respect established nutrient profiles, or adjusted nutrient profiles is envisaged for certain foods or categories of foods depending on their role and importance in the diet of the population.

2.1. Exemption for food supplements and other low energy foods

Exemptions for certain foods or food categories can be decided on the basis of the lack of nutritional impact on the diet for the nutrients that will be taken into account for the profiles, such as fat, salt and sugars.

Such a category is food supplements, as defined in Article (2)(a) of Directive 2002/46/EC, which have no significant nutritional impact on salt, fat or sugar intake. Similarly, chewing gum, mouth refreshing products in the form of small pastilles providing less than 25kcal for a typical daily consumption.

2.2. Dietetic foods

A food for a particular nutritional use (PARNUT) is one which owing to its special composition or process of manufacture, is clearly distinguishable from food intended for normal consumption. It is sold in such a way as to indicate its suitability for its claimed particular nutritional purpose, which is not subject to the Regulation. However, additional nutrition and health claims are subject to the Regulation.

Dietetic foods are not only foods covered by the Directives adopted on the basis of the framework Council Directive 89/398/EEC, but also foods notified under article 9 of this Directive, for which there is no standard of composition.

2.2.1. *Exemptions for foods for which composition aspects are fixed by specific Directives*

This exemption would concern foods for which composition is regulated on the basis of scientific advice, It would concern:

- Cereal-based foods and baby foods intended for infants and young children covered by Commission Directive 2006/125/EC on processed cereal-based foods and baby foods for infants and young children
- Foods intended for use in energy-restricted diets for weight reduction covered by Commission Directive 96/8/EC on foods intended for use in energy-restricted diets for weight reduction
- Infant formulae and follow-on formulae covered by Commission Directive 2006/141/EC on infant formulae and follow-on formulae and amending Directive 1999/21/EC
- Dietary foods for special medical purposes covered Commission Directive 1999/21/EC on dietary foods for special medical purposes
-

2.2.2. *Other dietetic foods*

The indication of the suitability for the particular nutritional purpose is outside the scope of Regulation 1924/2006 and consequently nutrient profiles will not apply for such indications. However, additional claims would be subject to nutrient profiles without exemption.

2.3. **Fruits and vegetables**

A total exemption could cover raw fruit and vegetables, fresh, frozen, chilled, dried, and fruit and vegetable juices without added sugar.

Other fruit and vegetable products will benefit from adapted nutrient profiles, but not be subject to total exemption, as some of them can contribute appreciable intakes of sugar (added) or sodium (added) in the overall diet.

3. **FOOD COMPOSITION DATABASES**

Since no complete database existed that could be accessed to test nutrient profiles, the EFSA Data Collection and Exposure Unit assembled three sets of food composition databases:

EFSA developed food composition datasets to assist the NDA Panel, the Commission and Member States in establishing and testing nutrient profiling schemes, in order to determine which foods are being eligible to bear nutrition and/or health claims.

Composition databases include:

- foods representative of all food groups across Member States;
- products as sold to the final consumer (**Commercial Food Basket**)
- official national nutrient data (**National Food Basket**)

- a training set for overview during development (1500 sample **Limited Food Basket**)

3.1. The National Food Basket

The National Food Basket contains results from official national analyses downloaded from web pages of Denmark, Norway and Sweden, purchased databases from Germany and the United Kingdom, and information submitted by France, Ireland, Italy and Spain. Austria also kindly submitted analytical results but the nutrients covered were not sufficient to be included in the database. The sources are gratefully acknowledged (see end of document).

Number of food products: 19,885.

Number of nutrients: up to 36 macro and micro nutrients.

3.2. The Commercial Food Basket

The Commercial Food Basket assembled with assistance from CIAA and incorporating British commercial data used to develop the nutrient profiling scheme for children's advertising and French commercial data used to develop a French scheme. Also label data assembled from commercial websites.

Number of food products: 2,648.

Number of nutrients: 7 (most) – 33 (few) macro and micro nutrients

3.3. The Limited Food Basket

Commission and Member States required the development of a “training database” containing key foods representative of the diversity of the food offer, but still allowing a quick reading of test results. Foods were selected from the national food composition databases.

In order to perform the selection all food items were divided into strata based on the content of saturated fat, sugar, sodium and fibre. One food item per strata formed a sub-sample of about 600 items. When presented to Member States the addition of a further 400 items was initially suggested. Finally some Member States suggested the addition of some further local items.

Number of food products: 1,494.

Number of nutrients: up to 36 macro and micro nutrients.

The limited food basket was developed in collaboration with the NDA Panel and the NDA Panel Support Unit. It was modified based on Member State inputs.

4. NUTRIENT PROFILES SYSTEM

4.1. Structure of the system

Foods not exempted from compliance to nutrient profiles have to comply with a generic profile, unless they qualify for the use of adapted thresholds foreseen for the following food categories:

- No alcoholic beverages,
- Vegetable oils and spreadable fats,
- Dairy products, except cheeses
 - Dairy products, except cheeses
 - Cheese
- Cereal and cereal products
 - Cereal and cereal products except breakfast cereals
 - Breakfast cereals
- Fruits, vegetables, and their products,
- Meat and meat products,
- Fish and fish products,
- Ready meals.

Thresholds using the weight reference (per 100g) will be set for some or all of the following nutrients, depending on the food category:

- Saturated fat,
- Sodium,
- Sugars¹.

5. DEFINING THE CATEGORY CONTENT

5.1. Adaptation of the Eurofir classification system

Table 1 summarises the adaptation necessary for the use of the Eurofir database. The Eurofir system is used to organise the display of the results in the testing tool.

¹ Sugars are mono and disaccharides, and notably include lactose from dairy products.

Table 1: Nutrients profiles categories and corresponding Eurofir categories and subcategories

Nutrient profile food category	EUROFIR Food sub category	EUROFIR Food category
Beverages	Non-alcoholic beverage	Beverages
Fruits, vegetables, nuts and their products	Juice or nectar	Fruit or fruit product
	Processed fruit product	
	Fresh fruit	
	Pulse or pulse product	Vegetable or vegetable product
	Starchy root or potato	
	Vegetable (excluding potato)	
	Nut or seed product	Nut, seed or kernel
Other food subject to generic nutrient profiles	Egg dish	Fresh or processed egg
	Fresh or processed egg	
Vegetable oils and spreadable fats	Vegetable fat or oil	Fat or oil
	Butter or other animal fat	
	Margarine or lipid of mixed origin	
Cereal and cereal products except breakfast cereals	Fine bakery ware	Grain or grain product
	Pasta	
	Rice or other grain	
	Savoury cereal dish	
	Bread	
Breakfast cereals	Breakfast cereals	
Meat and meat products	Meat dish	Meat or meat product, meat analogue
	Offal	
	Poultry	
	Preserved meat	
	Red meat	
	Sausage or similar meat product	
Other food subject to generic nutrient profiles	Meat analogue	
Cheese	Cheese	Milk, milk product, or milk substitute
Dairy products, except cheeses	Fermented milk product	
	Frozen dairy dessert	
Other food subject to generic nutrient profiles	Milk	Miscellaneous product
	Immitation milk product	
	Prepared food product	
Fish and fish products	Spice, condiment or other ingredient	Seafood or related product
	Fish or related organism	
	Seafood dish	
Other food subject to generic nutrient profiles	Seafood product	Sugar or sugar product
	Chocolate or chocolate product	
	Jam or marmelade	
	Non-chocolate confectionary or other sugar products	
	Sugar, honey or syrup	

5.2. Definition of eligibility criteria for food categories

The categories benefiting from adapted profiles need well defined contents. Eligibility criteria have to be established, as the Eurofir descriptors are not sufficient to avoid borderline issues. The eligibility criteria proposed are mainly composition criteria. Reference to Community definition can also be envisaged. They are listed in table 2².

Table 2: Eligibility criteria for the specific food categories

Nutrient profile food category	Eligibility Criteria
Non-alcoholic beverages	Water and water based drinks, excluding milk, fruit juices, soups No eligibility criterion needed
Fruits, vegetables, nuts and their products	Minimum 50g of fruit, vegetable or nuts per 100g of products
Cereal and cereal products except breakfast cereals	Minimum [30g - 50g] of cereal per 100g of products
Breakfast cereals	
Meat and meat products	Minimum 50g of meat per 100g of products
Cheese	Minimum 50g of dairy constituent per 100g of products
Dairy products, except cheeses	
Fish and fish products	Minimum 50g of fish per 100g of products
Vegetable oils and spreadable fats	As defined in Council Regulation (EC) No 2991/94 ³ , (a) milk fats falling within CN codes 0405 and ex 2106; (b) fats falling within CN code ex 1517; and (c) fats composed of plant and/or animal products falling within CN codes ex 1517 and ex 2106; with a fat content of at least 10 % but less than 90 % by weight, intended for human consumption. The fat content excluding salt must be at least two-thirds of the dry matter.
Ready meal, soup, sandwich	Minimum 200g Two categories minimum among fruit, vegetable or nuts products, cereal and cereal products, meat and meat products, fish and fish products Minimum 30g to count for one category

² Proposal for minimum contents can be subject to changes, information on product composition is needed to evaluate the impact of such eligibility criteria.

³ Following the definition laid down in article 1 of Council Regulation (EC) No 2991/94 laying down standards for spreadable fats,

spreadable fats are:

(a) milk fats falling within CN codes 0405 and ex 2106;

(b) fats falling within CN code ex 1517; and

(c) fats composed of plant and/or animal products falling within CN codes ex 1517 and ex 2106; with a fat content of at least 10 % but less than 90 % by weight, intended for human consumption.

The fat content excluding salt must be at least two-thirds of the dry matter.

6. LEVELS

The criteria and the threshold values used for the testing are detailed in the following table and represented in the following graphic.

Table 3: threshold values for nutrient profiles

Food category		Sodium (mg/100g)	Saturated fat (g/100g)	Sugars (g/100g)
Non alcoholic beverage		-	-	5
Vegetable oil and spreadable fat		-	30	-
Fruit, vegetable, nut, and their product		400	5	15
Nut, seed or kernel		300	10	10
Meat or meat product		500	5	-
Fish and fish products		500	10	-
Dairy products	Dairy product, except cheese	300	2	15
	Cheese	600	10	15
Cereal and cereal product	Cereal and cereal products except breakfast cereals	400	5	15
	Breakfast cereal	700	5	25
Ready meal, soup and sandwich		400	5	10
Other food		300	2	10

7. TESTING

The thresholds were tested using the following values in the testing tool, including the additional line on ready meals:

Table 4: threshold values⁴ for the testing tool⁵

Food category	Energy (kcal/100g)	Sodium (mg/100g)	Saturated fat (g/100g)	Sugars (g/100g)
Beverage (non-milk)	901	100000	101	5
Juice or nectar	901	100000	101	15
Egg or egg product	901	300	2	10
Fat or oil	901	100000	30	101
Fruit or fruit product	901	300	5	15
Grain or grain product	901	400	5	15
Breakfast cereals	901	700	5	25
Meat or meat product	901	500	5	10
Milk, milk product or milk sub,	901	300	2	15
Cheese	901	600	10	15
Imitation milk products	901	300	2	10
Miscellaneous product	901	300	2	10
Nut, seed or kernel	901	300	10	15
Seafood or related product	901	500	10	101
Sugar or sugar product	901	300	2	10
Vegetable or vegetable product	901	300	5	15
Ready meal, soup, sandwich	901	400	2	10

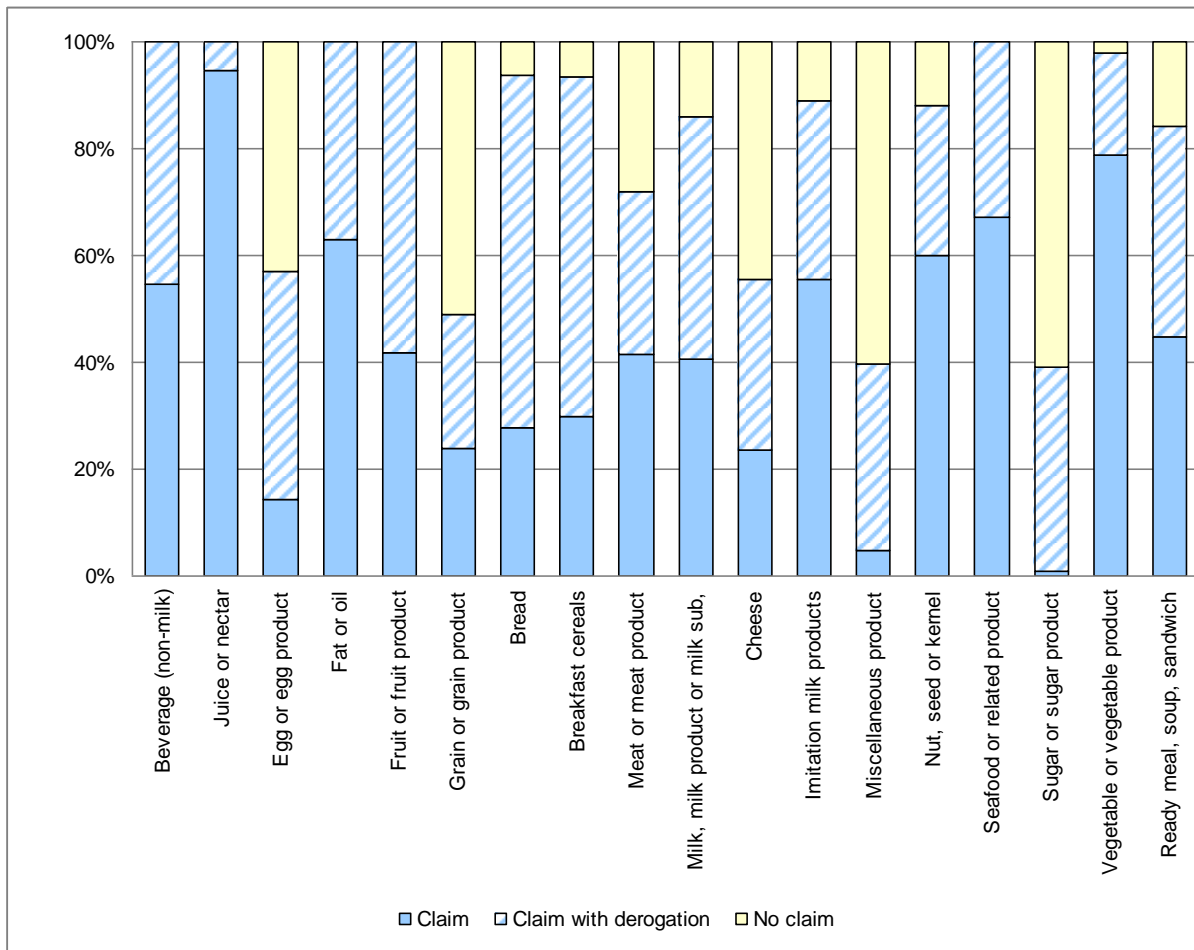
⁴ Values 901 for energy, 100000 for sodium, 101 for saturated fat and sugars are entered to inactivate a criterion for a given category.

⁵ The testing tool was modified to include a line for specific thresholds for ready meals

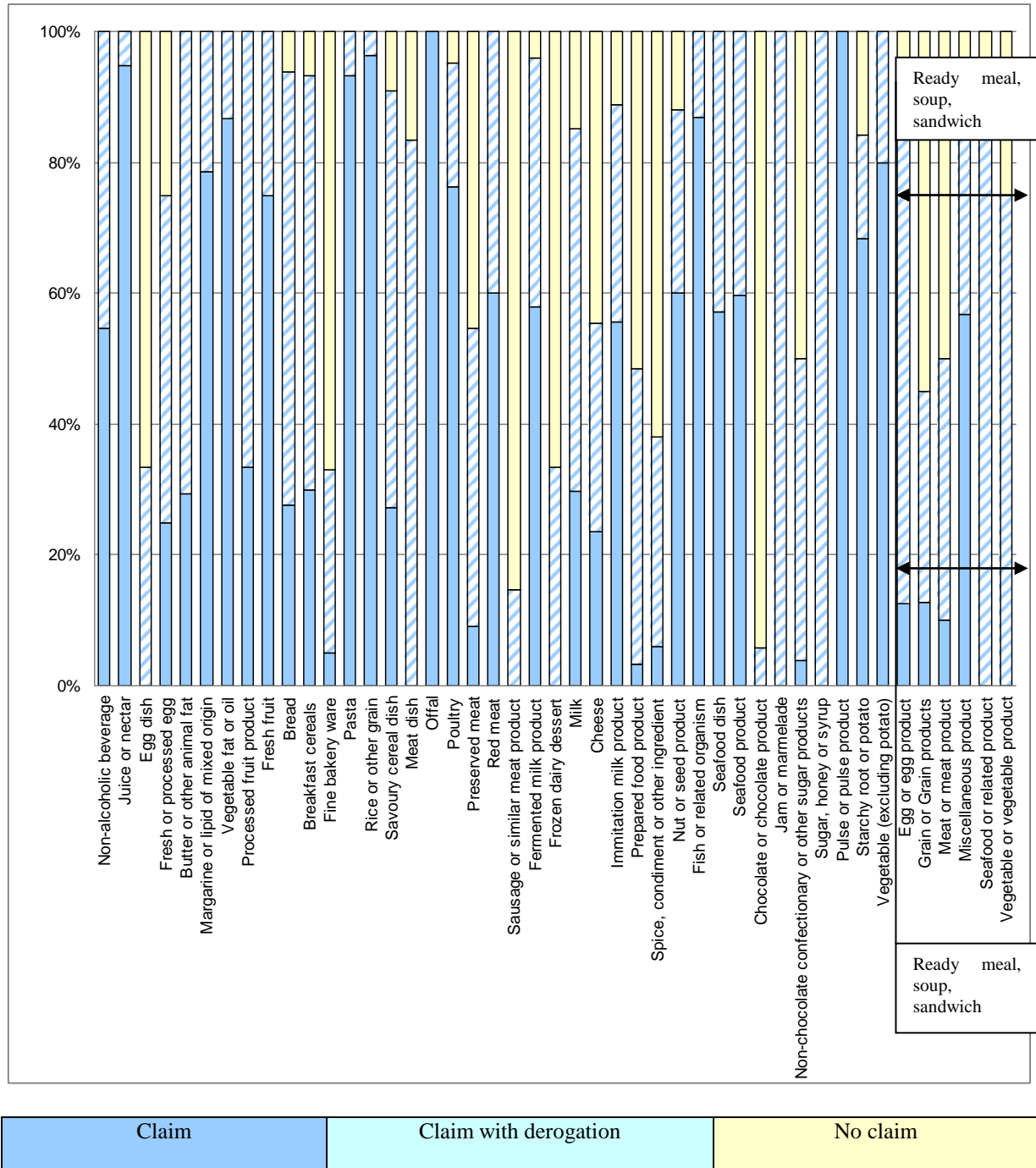
8. RESULTS

The results are summarised in the following graphics. The testing tool should be used to access detailed results.

Graphic 1: Eligibility of foods based displayed using adapted Eurofir categories

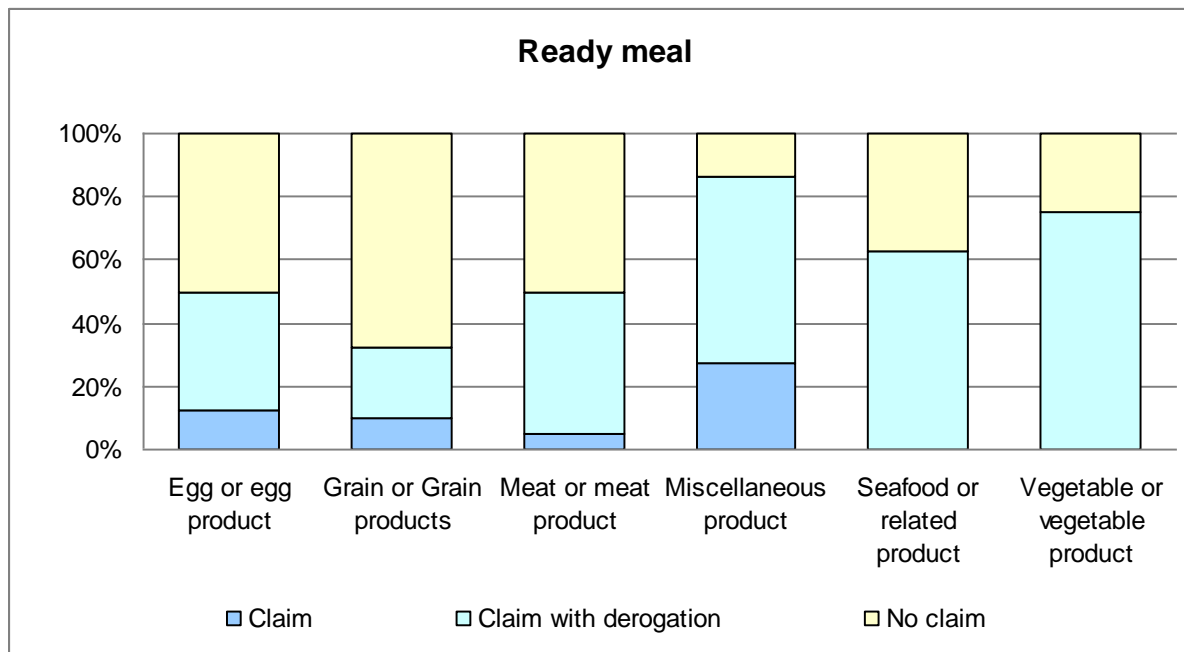


Graphic 2: Eligibility of foods within food categories – results displayed with adapted Eurofir categories and subcategories



Detailed results for the new category “ready meal, soup, or sandwich” are detailed in the following graphic.

Graphic 3: eligibility of the category “ready meal, soup, sandwich” based on previous Eurofir classification



9. VALIDATION

The EFSA opinion on nutrient profiles refers to food based dietary guidelines (FBDG) to validate nutrient profiles. No European FBDG is available, but some were developed and are used by Member States.

They should be coherent with the output of the nutrient profiles system, which therefore should allow at least some foods of the categories whose higher consumption is recommended.

A summary of Member States FBDG is provided in the following tables, which were adapted from a WHO report from 2002⁶.

⁶ Food based dietary Guidelines in the WHO European Region, Copenhagen, WHO Regional Office for Europe. Document E7983 - <http://www.euro.who.int/Document/E79832.pdf>

Table 5: Recommendation on bread, grains, rice, potatoes and/or pasta

Member states	Recommendation on bread, grains, rice, potatoes and/or pasta
Denmark	Yes, but not specified
Finland	Included, but not quantified (food circle, pyramid and plate model)
Sweden	Included, but not quantified
Austria	5 – 7 slices/d of bread (250 – 350 g), 1 portion/d of rice or pasta (50 – 70 g raw, 220 –250 g cooked) or 4 – 5 medium sized potatoes (250 – 300 g). 1 – 2 slices of bread could also be replaced through cereals.
Germany	5-7 slices/d of bread (250-350g) of which 2 slices should be whole grain; 1 portion/d of rice or pasta (50-70g / cooked 220-270g); 1 portion/d of potatoes (4-5 middle sized /250-300g)
Ireland	(1serving = 1 bowl breakfast cereal; 1 slice bread; 2 tablespoons cooked pasta or rice; 1 medium potato boiled or baked). Choose high fibre bread and cereals.
Luxemburg	4-5 portions/d (1 serving at each main meal)
UK	“Eat lots” recommended for bread, other cereals and potatoes
Greece	8 servings/d of non-refined cereals and products: whole grain bread, whole grain pasta, brown rice etc, not including potatoes on daily basis. One serving = one slice of bread (25g), = half a cup (i.e. 50-60 g) of cooked rice or pasta = approximately ½ portion as defined in Greek market regulations (in case of mixed dishes)
Italy	2-4 portions/d
Portugal	Increase intake of cereals, potatoes and pulses but not quantified
Spain	6-10 portions/d(1 portion=40-50g rolls; 40-60g bread; 30-40g cereals; 100-150g rice; 100-150 g legumes; 100-150g pasta)
Czech Republic	3-6 servings/d; 1 serving = 1 slice of bread (60g), 1 cup boiled pasta, rice, cereals(120g)
Hungary	5-9 unit/day of cereals (mostly whole grains)
Poland	5-6 portions/d of cereals and potatoes
Slovenia	Eat bread, grains, pasta, rice or potatoes several times per day.
Estonia	Eat mostly rye-bread and cereals: Cereals - 6-8 portions daily, one portion 1 slice of bread, 1 dl porridge, pasta, rice, 3 tablespoon of muesli or flakes; Potato – 3-5 portions daily, one portion 1 big boiled potato or 1 dl mashed potato etc.
Latvia	About 500g/d for adults
Lithuania	5-11 portions of bread, grains and potatoes

Table 6: Recommendation on fruit and vegetable

Member states	Recommendation on fruit and vegetables
Denmark	6 servings/d or 600g Yes, but not specified
Finland	Included, but not quantified (food circle, pyramid and plate model)
Sweden	500g/d
Austria	At least 2 pieces or portions of fruit (250 – 300 g)daily
Germany	“5 a day” i.e.at least 5 servings of vegetable and fruit/d
Ireland	“5 a day” i.e.at least 5 servings of vegetable and fruit/d 4 or more servings / day (1 serving= ½ glass fruit juice; 1 medium fresh fruit; 2 tablespoons cooked vegetables or salad; small bowl homemade vegetable soup; 2 tablespoons cooked or tinned fruit
Luxemburg	3-5 portions/d of vegetables and 2-3 portions/d of fruit
UK	At least 5 portions/d
Greece	3 servings fruit/day; 6 servings vegetables/d including “wild greens” One serving = a cup of raw leafy vegetables or half a cup of other vegetables, cooked or chopped (i.e. ~ 100 g of most vegetables)
Italy	3-5 portions/d
Malta	Dietary guidelines include ‘ to eat more fresh fruit and vegetables’
Portugal	Increase fruit and vegetable intake but not quantified
Spain	3-5 portions/d vegetables (200-250g including potatoes) and 2-4 portions/d fruit (150- 200g fruit; 100-150g fruit juice)
Czech Republic	3-5 servings/d of vegetables, 2-4 servings/d fruit, both preferably fresh (1 serving=100g)
Hungary	5-9 units vegetables and fruit
Poland	5-6 portions/d of total fruit and vegetables, preferably fresh
Slovak Republic	Increase fruit and vegetable intake
Slovenia	Eat a variety of vegetables and fruits, preferably fresh and local, several times per day (at least 400 g per day).
Estonia	Vegetables – 3-5 portions daily, one portion is 1-2 dl vegetables; Fruits - 2-4 portions daily, one portion 1 fruit or 2 dl berries, 2 dl fruit juice.
Latvia	400g/d of local vegetables, fruit and berries
Lithuania	3-5 portions of vegetables and 2-4 portions of fruits

Table 7: Recommendation on low fat milk and dairy products

Member States	Recommendation on low fat milk and dairy products
Denmark	500g/d low fat milk products; 1 slice/d of low fat cheese
Finland	Low fat/fat free dairy, not quantified
Sweden	0.5 l/d of milk, partly from cheese
Austria	0,25 l/d of low-fat milk, 3 slices/d Cheese (30 g/slice)
Germany	General recommendation to prefer low fat milk and dairy products
Ireland	3 servings/d of low fat milk, cheese or yoghurt (1 serving= 1/3 pint milk; 1 carton yoghurt, 1oz Cheddar, Edam...)
Luxemburg	Max 2-3 portions/d of low fat milk or dairy or 500 ml milk/d
UK	Eat moderate amounts and choose lower fat, not quantified
Greece	2 servings/day, in the form of cheese, traditional yoghurt and milk. No specific recommendation on low fat milk and products.
Italy	No mention is made of quantity of low fat milk, the indication being for the whole "Milk, yoghurt, dairy products 1-2 portions/day". Mention is made of being generally preferable to choose a low fat milk, and cheeses with lesser fat content.
Malta	Low fat milk, not quantified
Portugal	5-6 dL for child and adolescents; 5 dL for adults; 7.5 dL for pregnant and post-menopausal women and older people; 1L during lactation (whole or low-fat for child and adolescents; low-fat milk for the other people)
Spain	2-3 portions/d (1 portion=200-250ml milk or 125ml yoghurt or 30-40g cheese; 60g fresh cheese)
Bulgaria	Quantified in cups and millilitres for milk
Czech Republic	2-3 servings/d (1 servings= 300mg Ca 2+ =300ml milk or 200ml yoghurt or 55g cheese); low fat milk recommended for children over 5 years and adults.
Hungary	3-4 unit/day of milk and dairy (0.5l milk/d)
Poland	3-4 portions/d
Slovak Republic	Low fat dairy products, not quantified
Estonia	Choose low-fat milk and milk products, prefer healthy cooking; Dairy -2-4 portions daily, one portion is 2 dl milk, yoghurt, kefir; 50g 10% cream, 100g low-fat curd; 50g curd cream, 50g icecream,20g cheese
Latvia	500-750 mL milk and fermented milk, and low fat milk.
Lithuania	Choose low-fat milk and milk products
Slovenia	Use low fat milk and dairy products (kefir, sour milk, yoghurt and cheese) that are low in both fat and salt.

Table 8: Recommendation on lean meat, poultry, fish and legumes

Member States	Recommendation on lean meat, poultry, fish and legumes
Denmark	Fish:1-2 servings/d (or 200-300g/week)
Finland	Yes but not quantified
Austria	1 – 2 portions (150 g)/weekly of fish, not more than 2 – 3 times per week meat (150 g/portion max.) and sausages (50 g/portion max), 3 eggs/week max.
Germany	<300-600g of meat/week, max 3 eggs/week, 1portion of seafood/week
Ireland	2 servings/d of meat, fish, eggs or beans, (3 servings during pregnancy)
Luxemburg	2-3 portions/d, not more than 1 serving/meal
UK	Eat moderate amounts and choose lower fat, not quantified
Greece	Fish and seafood could substitute meat and eggs. Poultry is much preferred over red meat, and eggs, including those used for cooking or baking. In this context the recommended amounts are: 5-6 servings/ week fish; 4 servings/week poultry; 3-4 servings/week olives, pulses and nuts; 3 servings/week eggs; 4 servings/month red meat
Italy	1-2 portions/d
Malta	Not quantified but guidelines advise consumption of lean meat, fish & poultry
Portugal	Increase fish and pulses, prefer lean meat, not quantified
Spain	2-3 portions/d (1 portion= 100-150g meat or 100-150g fish; 50g eggs)
Bulgaria	Meat quantified in grams/d and legumes in portions/week
Czech Republic	1-3 servings/d (1 serving= 80g)
Hungary	2-3 unit/day of the group of meat, meat products, fish, eggs, soy; Marine fish at least once/week
Poland	1-2 portions/d
Slovak Republic	Lean meat, preferably poultry, consume fish + legumes at least once/week, not quantified
Slovenia	Replace fatty meat and meat products with beans, legumes, lentils, fish, poultry or lean meat.
Estonia	E at mostly fish and poultry; choose low-fat foods, preferably healthy cooking. Fish is recommended 2-3 times per week. Meat-fish-eggs -2-4 portions daily, one portion is 50g low-fat meat, 2 small sausages (wiener), 3 slices of sausage, 50g pâté, 50g fish (fillet), 25g canned fish, 1 egg (2 eggs per week), 300g mushrooms
Latvia	Yes, not quantified
Lithuania	Use poultry, fish and beans instead of fatty meat