

# GUIDELINES ON NUTRITION LABELLING

CAC/GL 2-1985

## PURPOSE OF THE GUIDELINES

To ensure that nutrition labelling is effective:

- In providing the consumer with information about a food so that a wise choice of food can be made;
- in providing a means for conveying information of the nutrient content of a food on the label;
- in encouraging the use of sound nutrition principles in the formulation of foods which would benefit public health;
- in providing the opportunity to include supplementary nutrition information on the label.

To ensure that nutrition labelling does not describe a product or present information about it which is in any way false, misleading, deceptive or insignificant in any manner.

To ensure that no nutrition claim is made without nutrition labelling.

## PRINCIPLES FOR NUTRITION LABELLING

### A. Nutrient declaration

- Information supplied should be for the purpose of providing consumers with a suitable profile of nutrients contained in the food and considered to be of nutritional importance. The information should not lead consumers to believe that there is exact quantitative knowledge of what individuals should eat in order to maintain health, but rather to convey an understanding of the quantity of nutrients contained in the product. A more exact quantitative delineation for individuals is not valid because there is no meaningful way in which knowledge about individual requirements can be used in labelling.

### B. Supplementary nutrition information

- The content of supplementary nutrition information will vary from one country to another and within any country from one target population group to another according to the educational policy of the country and the needs of the target groups.

### C. Nutrition labelling

- Nutrition labelling should not deliberately imply that a food which carries such labelling has necessarily any nutritional advantage over a food which is not so labelled.

## 1. SCOPE

- 1.1 These guidelines recommend procedures for the nutrition labelling of foods.
- 1.2 These guidelines apply to the nutrition labelling of all foods. For foods for special dietary uses, more detailed provisions may be developed.

## 2. DEFINITIONS

For the purpose of these guidelines:

- 2.1 **Nutrition labelling** is a description intended to inform the consumer of nutritional properties of a food.
- 2.2 Nutrition labelling consists of two components:
  - (a) nutrient declaration;
  - (b) supplementary nutrition information.
- 2.3 **Nutrient declaration** means a standardized statement or listing of the nutrient content of a food.
- 2.4 **Nutrition claim** means any representation which states, suggests or implies that a food has particular nutritional properties including but not limited to the energy value and to the content of protein, fat and carbohydrates, as well as the content of vitamins and minerals. The following do not constitute nutrition claims:
  - (a) the mention of substances in the list of ingredients;
  - (b) the mention of nutrients as a mandatory part of nutrition labelling;
  - (c) quantitative or qualitative declaration of certain nutrients or ingredients on the label if required by national legislation.

- 2.5 **Nutrient** means any substance normally consumed as a constituent of food:
- which provides energy; or
  - which is needed for growth, development and maintenance of life; or
  - a deficit of which will cause characteristic bio-chemical or physiological changes to occur.
- 2.6 **Sugars** means all mono-saccharides and di-saccharides present in food.
- 2.7 **Dietary fibre** means carbohydrate polymers<sup>1</sup> with ten or more monomeric units<sup>2</sup>, which are not hydrolysed by the endogenous enzymes in the small intestine of humans and belong to the following categories:
- Edible carbohydrate polymers naturally occurring in the food as consumed,
  - carbohydrate polymers, which have been obtained from food raw material by physical, enzymatic or chemical means and which have been shown to have a physiological effect of benefit to health as demonstrated by generally accepted scientific evidence to competent authorities,
  - synthetic carbohydrate polymers which have been shown to have a physiological effect of benefit to health as demonstrated by generally accepted scientific evidence to competent authorities
- 2.8 **Polyunsaturated fatty acids** means fatty acids with cis-cis methylene interrupted double bonds.
- 2.9 **Trans Fatty Acids**<sup>3</sup>: For the purpose of the Codex *Guidelines on Nutrition Labelling* and other related Codex Standards and Guidelines, trans fatty acids are defined as all the geometrical isomers of monounsaturated and polyunsaturated fatty acids having non-conjugated, interrupted by at least one methylene group, carbon-carbon double bonds in the trans configuration.

### 3. NUTRIENT DECLARATION

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#### 3.1 Application of nutrient declaration

- 3.1.1 Nutrient declaration should be mandatory for foods for which nutrition claims, as defined in Section 2.4, are made.
- 3.1.2 Nutrient declaration should be voluntary for all other foods.

#### 3.2 Listing of nutrients

- 3.2.1 Where nutrient declaration is applied, the declaration of the following should be mandatory:
- Energy value; and
  - The amounts of protein, available carbohydrate (i.e. dietary carbohydrate excluding dietary fibre), fat, saturated fat, sodium<sup>4</sup> and total sugars; and
  - The amount of any other nutrient for which a nutrition or health claim is made; and
  - The amount of any other nutrient considered to be relevant for maintaining a good nutritional status, as required by national legislation or national dietary guidelines<sup>5</sup>.
- 3.2.2 When a voluntary declaration of specific nutrient, in addition to those listed in section 3.2.1, is applied, national legislation may require the mandatory declaration of the amount of any other nutrients considered relevant for maintaining a good nutritional status.
- 3.2.3 Where a specific nutrition or health claim is applied, then the declaration of the amount of any other nutrient considered relevant for maintaining a good nutritional status as required by national legislation or national dietary guidelines should be mandatory.
- 3.2.4 Where a claim is made regarding the amount and/or the type of carbohydrate, the amount of total sugars should be listed in addition to the requirements in Section 3.2.1. The amounts of starch and/or other carbohydrate constituent(s) may also be listed. Where a claim is made regarding the dietary fibre content, the amount of dietary fibre should be declared.

<sup>1</sup> When derived from a plant origin, dietary fibre may include fractions of lignin and/or other compounds associated with polysaccharides in the plant cell walls. These compounds also may be measured by certain analytical method(s) for dietary fibre. However, such compounds are not included in the definition of dietary fibre if extracted and re-introduced into a food.

<sup>2</sup> Decision on whether to include carbohydrates from 3 to 9 monomeric units should be left to national authorities.

<sup>3</sup> Codex Members may, for the purposes of nutrition labelling, review the inclusion of specific trans fatty acids (TFAs) in the definition of TFAs if new scientific data become available.

<sup>4</sup> National authorities may decide to express the total amount of sodium in salt equivalents as "salt".

<sup>5</sup> Countries where the level of intake of trans-fatty acids is a public health concern should consider the declaration of trans-fatty acids in nutrition labelling.

- 3.2.5 Where a claim is made regarding the amount and/or type of fatty acids or the amount of cholesterol, the amounts of saturated fatty acids, monounsaturated fatty acids and polyunsaturated fatty acids and cholesterol should be declared, and the amount of trans fatty acid may be required according to national legislation, in addition to the requirements of Section 3.2.1 and in accordance with Section 3.4.7.
- 3.2.6 In addition to the mandatory declaration under 3.2.1, 3.2.3 and 3.2.4 vitamins and minerals may be listed in accordance with the following criteria:
- 3.2.6.1 Only vitamins and minerals for which recommended intakes have been established and/or which are of nutritional importance in the country concerned should also be declared.
- 3.2.6.2 When nutrient declaration is applied, vitamins and minerals which are present in amounts less than 5% of the Nutrient Reference Value or of the officially recognized guidelines of the competent authority per 100 g or 100 ml or per serving as quantified on the label should not be declared.
- 3.2.7 In the case where a product is subject to labelling requirements of a Codex standard, the provisions for nutrient declaration set out in that standard should take precedence over but not conflict with the provisions of Sections 3.2.1 to 3.2.6 of these Guidelines.

### 3.3 Calculation of nutrients

#### 3.3.1 Calculation of energy

The amount of energy to be listed should be calculated by using the following conversion factors:

Carbohydrates	4 kcal/g – 17 kJ
Protein	4 kcal/g – 17 kJ
Fat	9 kcal/g – 37 kJ
Alcohol (Ethanol)	7 kcal/g – 29 kJ
Organic acid	3 kcal/g – 13 kJ

#### 3.3.2 Calculation of protein

The amount of protein to be listed should be calculated using the formula:

$$\text{Protein} = \text{Total Kjeldahl Nitrogen} \times 6.25$$

unless a different factor is given in a Codex standard or in the Codex method of analysis for that food.

### 3.4 Presentation of nutrient content

- 3.4.1 The declaration of nutrient content should be numerical. However, the use of additional means of presentation should not be excluded.
- 3.4.2 Information on energy value should be expressed in kJ and kcal per 100 g or per 100 ml or per package if the package contains only a single portion. In addition, this information may be given per serving as quantified on the label or per portion provided that the number of portions contained in the package is stated.
- 3.4.3 Information on the amounts of protein, carbohydrate and fat in the food should be expressed in g per 100 g or per 100 ml or per package if the package contains only a single portion. In addition, this information may be given per serving as quantified on the label or per portion provided that the number of portions contained in the package is stated.
- 3.4.4 Numerical information on vitamins and minerals should be expressed in metric units and/or as a percentage of the Nutrient Reference Value per 100 g or per 100 ml or per package if the package contains only a single portion. In addition, this information may be given per serving as quantified on the label or per portion provided that the number of portions contained in the package is stated.

In addition, information on protein may also be expressed as percentages of the Nutrient Reference Value<sup>6</sup>.

The following Nutrient Reference Values should be used for labelling purposes in the interests of international standardization and harmonization:

<sup>6</sup> In order to take into account future scientific developments, future FAO/WHO and other expert recommendations and other relevant information, the list of nutrients and the list of nutrient reference values should be kept under review.

Protein	(g)	50
Vitamin A	(µg)	800 <sup>7</sup>
Vitamin D	(µg)	5 <sup>8</sup>
Vitamin C	(mg)	60
Thiamin	(mg)	1.4
Riboflavin	(mg)	1.6
Niacin	(mg)	18 <sup>6</sup>
Vitamin B <sub>6</sub>	(mg)	2
Folic acid	(µg)	200
Vitamin B <sub>12</sub>	(µg)	1
Calcium	(mg)	800
Magnesium	(mg)	300
Iron	(mg)	14
Zinc	(mg)	15
Iodine	(µg)	150 <sup>6</sup>
Copper	Value to be established	
Selenium	Value to be established	

3.4.5 In countries where serving sizes are normally used, the information required by Sections 3.4.2, 3.4.3 and 3.4.4 may be given per serving only as quantified on the label or per portion provided that the number of portions contained in the package is stated.

3.4.6 The presence of available carbohydrates should be declared on the label as "carbohydrates". Where the type of carbohydrate is declared, this declaration should follow immediately the declaration of the total carbohydrate content in the following format:

"Carbohydrate ... g, of which sugars ... g".

This may be followed by the following: "x" ...g

where "x" represents the specific name of any other carbohydrate constituent.

3.4.7 Where the amount and/or type of fatty acids or the amount of cholesterol is declared, this declaration should follow immediately the declaration of the total fat in accordance with Section 3.4.3.

The following format should be used:

<b>Total Fat</b>	...	g
of which	saturated fatty acids	g
	trans fatty acids	g
	monounsaturated fatty acids	g
	polyunsaturated fatty acids	g
<b>Cholesterol</b>	...	mg

### 3.5 Tolerances and compliance

3.5.1 Tolerance limits should be set in relation to public health concerns, shelf-life, accuracy of analysis, processing variability and inherent lability and variability of the nutrient in the product, and, according to whether the nutrient has been added or is naturally occurring in the product.

3.5.2 The values used in nutrient declaration should be weighted average values derived from data specifically obtained from analyses of products which are representative of the product being labelled.

3.5.3 In those cases where a product is subject to a Codex standard, requirements for tolerances for nutrient declaration established by the standard should take precedence over these guidelines.

<sup>7</sup> For the declaration of β-carotene (provitamin A) the following conversion factor should be used: 1 µg retinol = 6 µg β-carotene

<sup>8</sup> Nutrient Reference Values for Vitamin D, Niacin and Iodine may not be applicable for countries where national nutrition policies or local conditions provide sufficient allowance to ensure that individual requirements are satisfied. See also section 3.2.6.1 of the Codex Guidelines on Nutrition Labelling.

## 4. PRINCIPLES AND CRITERIA FOR LEGIBILITY OF NUTRITION LABELLING

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### 4.1 General principles

In the case of nutrition labelling whether applied on a mandatory or voluntary basis, the principles of Sections 8.1.1, 8.1.2, 8.1.3 and 8.2 of the General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985) should be applied. Sections 8.1.1, 8.1.2 and 8.1.3 should be applied to any supplementary nutrition labels.

### 4.2 Specific features of presentation

- 4.2.1 These recommendations related to specific features of presentation are intended to enhance the legibility of nutrition labelling. However, competent authorities may determine any additional means of presentation of nutrition information taking into account approaches and practical issues at the national level and based on the needs of their consumers.
- 4.2.2 Format – Nutrient content should be declared in a numerical, tabular format. Where there is insufficient space for a tabular format, nutrient declaration may be presented in a linear format.
- 4.2.3 Nutrients should be declared in a specific order developed by competent authorities and should be consistent across food products.
- 4.2.4 Font – The font type, style and a minimum font size as well as the use of upper and lower case letters should be considered by competent authorities to ensure legibility of nutrition labelling.
- 4.2.5 Contrast – A significant contrast should be maintained between the text and background so ~~as to be~~ that the nutrition information is clearly legible.
- 4.2.6 Numerical Presentation – The numerical presentation of nutrient content should be in accordance with the provisions of Section 3.4.

## 5. SUPPLEMENTARY NUTRITION INFORMATION

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- 5.1 Supplementary nutrition information is intended to increase the consumer's understanding of the nutritional value of their food and to assist in interpreting the nutrient declaration. There are a number of ways of presenting such information that may be suitable for use on food labels.
- 5.2 The use of supplementary nutrition information on food labels should be optional and should only be given in addition to, and not in place of, the nutrient declaration, except for target populations who have a high illiteracy rate and/or comparatively little knowledge of nutrition. For these, food group symbols or other pictorial or colour presentations may be used without the nutrient declaration.
- 5.3 Supplementary nutrition information on labels should be accompanied by consumer education programmes to increase consumer understanding and use of the information.

# ANNEX: GENERAL PRINCIPLES FOR ESTABLISHING NUTRIENT REFERENCE VALUES OF VITAMINS AND MINERALS FOR THE GENERAL POPULATION

## 1. PREAMBLE

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These principles apply to the establishment of Codex Nutrient Reference Values for labelling purposes (NRVs) for vitamins and minerals for the general population identified as individuals older than 36 months. These values may be used for helping consumers 1) estimate the relative contribution of individual products to overall healthful dietary intake and 2) as one way to compare the nutrient content between products.

Governments are encouraged to use the NRVs, or alternatively, consider the suitability of the general principles below and additional factors specific to a country or region in establishing their own nutrient reference values for labelling purposes. For example, at the national level, population-weighted values for the general population may be established by weighting science-based reference values for daily intakes for age-sex groups using census data for a country and proportions of each age-sex group. In addition, governments may establish nutrient reference values for food labelling that take into account country or region specific factors that affect nutrient absorption, ~~or~~ utilization, or requirements. Governments may also consider whether to establish separate food labelling reference values for specific segments of the general population such as pregnant and lactating women.

## 2. DEFINITIONS

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2.1. *Individual Nutrient Level 98 (INL<sub>98</sub>)*<sup>9</sup> is the daily nutrient intake value that is estimated to meet the nutrient requirement of 98 percent of the apparently healthy individuals in a specific life stage and sex group.

2.2. *Upper level of intake (UL)*<sup>10</sup> is the maximum level of habitual intake from all sources of a nutrient judged to be unlikely to lead to adverse health effects in humans.

## 3. GENERAL PRINCIPLES FOR ESTABLISHING VITAMIN AND MINERAL NRVs

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### 3.1 Selection of suitable data sources to establish NRVs

3.1.1 Relevant and recent daily nutrient intake values provided by FAO/WHO should be taken into consideration as primary sources in establishing NRVs.

3.1.2 Relevant and recent values that reflect independent review of the science, from recognized authoritative scientific bodies other than FAO/WHO could also be taken into consideration. Higher priority should be given, as appropriate, to values in which the evidence has been evaluated through a systematic review.

### 3.2 Selection of the appropriate basis

3.2.1 The NRVs should be based on Individual Nutrient Level 98 (INL<sub>98</sub>). In cases where there is an absence of an established INL<sub>98</sub> for a nutrient for a specific sub-group(s), it may be appropriate to consider the use of other reference values or ranges that have been established by recognized authoritative scientific bodies. The derivation of these values should be reviewed on a case-by-case basis.

3.2.2 The general population NRVs should be determined by calculating the mean values for a chosen reference population group older than 36 months. Nutrient Reference Values derived by the CCNFSU are based on the widest applicable age range for each of adult males and adult females.

3.2.3 For the purpose of establishing these NRVs, the values for pregnant and lactating women should be excluded.

### 3.3 Consideration of upper level of intake

The establishment of general population NRVs should also take into account upper level of intake established by recognized authoritative scientific bodies.

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<sup>9</sup> Different countries may use other terms for this concept, for example, Recommended Dietary Allowance (RDA), Recommended Daily Allowance (RDA), Reference Nutrient Intake (RNI), or Population Reference Intake (PRI).

<sup>10</sup> Different countries may use other terms for this concept, for example, Tolerable Upper Nutrient Intake Level (UL), or upper end of safe intake range.