

## Original Article

# Nutrition labelling: purpose, scientific issues and challenges

Annoek WEM Van den Wijngaart MSc

FAO Regional Office for Asia and Pacific, Bangkok, Thailand

Nutrition labels describe the nutrient content of a food and are intended to guide the consumer in food selection. The nutrition information provided must be selected on the basis of consistency with dietary recommendations. Selection of the specific nutrients or food components to be listed should further take into account label space, the analytical feasibility of measuring the particular nutritional component within the food matrix, and the relative costs of such analyses. Nutrition information provided on labels should be truthful and not mislead consumers. At the same time, labelling regulations should provide incentives to manufacturers to develop products that promote public health and assist consumers in following dietary recommendations. It is likely that in many countries, there would be some segments of the population that would benefit from information about the composition of foods. In these cases, countries should consider the need to provide for appropriate labelling and its presentation relative to existing guidelines and approaches. As nutrition-labelling efforts have evolved, different approaches and legal requirements have been established. These create difficulties in developing and harmonizing nutrition information listings, which have broad international applications. For these reasons, the Codex Guidelines on Nutrition Labeling play an important role to provide guidance to member countries when they want to develop or update their national regulations and to encourage harmonization of national standards with international standards. These Guidelines are based on the principle that no food should be described or presented in a manner that is false, misleading or deceptive. The Guidelines include provisions for voluntary nutrient declaration, calculation and presentation of nutrient information. The Guidelines on Claims establish general principles to be followed and leave the definition of specific claims to national regulations. Definitions are provided for a number of claims (nutrient content, comparative claims, nutrient function claims) as well as general requirements concerning consumer information in relation with claims. Nutrition labelling by itself cannot solve nutrition problems. It should be seen as one of the elements of nutrition policy and should be envisaged in the larger perspective of consumer education, which in its turn is part of an overall development policy. Exchange of information at the regional and subregional level is important, as each country can learn from the experience of others and regional co-ordination and co-operation can be developed.

**Key words:** CODEX Alimentarius Commission, nutrition claims, nutrition labelling.

### Introduction

Information about the contents of foods should be available to consumers. Listing the ingredients is one way to identify the nature of the food consumed, while providing a label which explains the nutrient content of the item is another. Labelling of foods has received considerable attention because of consumer demand in a number of countries. The appropriateness of food labelling and the ability to use such information may vary by country, health status of individuals, public health goals, and dietary patterns of different population groups within countries. However, it is expected that the increased availability of nutrition labels on food products will contribute towards an improved overall public health.

### Characteristics of the nutrition label

Nutrition labels describe the nutrient content of a food and are intended for the consumer. Therefore, the terminology used should be meaningful and understandable to the general

public. A standardized and simple format is likely to assist consumers in using food labels and in comparing foods. The nutrition information provided must be selected on the basis of consistency with dietary recommendations. Selection of the specific nutrients or food components to be listed should further take into account label space, the analytical feasibility of measuring the particular nutritional component within the food matrix, and the relative costs of such analyses.

### Implementing nutrition labelling

It should be noted that nutrition labelling might be questionable or irrelevant in a number of circumstances. Specifically, the nutrition label may not be cost effective or appropriate

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**Correspondence address:** Annoek WEM Van den Wijngaart, Associate Professional Officer Nutrition, FAO Regional Office for Asia and Pacific, 39 Phra Atit Road, 10200 Bangkok, Thailand. Tel. 662-6974000; Fax: 662 6974445  
Email: biplab.nandi@fao.org

where the primary public health concern is lack of sufficient food, in situations where educational levels are inadequate to allow consumers to read or comprehend such information, and where packaging and distribution methods for foodstuffs preclude the use of labels on or near foods.

Nonetheless, it is likely that many countries have some segments of the population that would benefit from information about the composition of foods. In these cases, countries should consider the need to provide for appropriate labelling and its presentation relative to existing guidelines and approaches.

As nutrition-labelling efforts have evolved, different approaches and legal requirements have been established. These create difficulties in developing and harmonizing nutrition information listings, which have broad international applications. This includes considerations such as:

- The number of languages to be used on the label.
- Whether information should be expressed quantitatively with symbols, or using descriptive phrases such as 'high', 'medium' or 'low'.
- Whether the nutrition information is expressed in amounts per 100 g of food or per specified serving.

### **Codex Alimentarius Commission**

The Codex Alimentarius Commission (CAC) was established in 1962 as a Joint FAO/WHO intergovernmental body. Its objectives are to protect consumers' health and facilitate international trade in food through the harmonization of food standards on a worldwide basis. Codex standards, codes and related texts have received wider acknowledgement following the conclusion of the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) and Technical Barriers to Trade (TBT), as Codex was specifically mentioned under SPS while reference to international standards applies to Codex in the framework of TBT.

The TBT Agreement covers all aspects of food standards not related to food safety, such as quality provisions, nutritional requirements and labelling; it includes a large number of measures intended to protect the consumer against deception and economic fraud. It provides that all technical regulations and standards must have a legitimate purpose and should not be used as barriers to trade, while placing emphasis on the use of international standards. In accordance with the provisions of the TBT Agreement, member countries should harmonize their national standards with international standards when they exist, except where the international standard would be ineffective or inappropriate in the national situation.

### **Scientific issues**

Codex standards and related texts also play an important role to provide guidance to member countries when they want to develop or update their national regulations, and they are used as a basis in the programmes carried out by FAO in the areas of food legislation and food control, and also for nutrition aspects.

There are currently more than 200 standards in the prescribed format for individual foods and groups of foods. All

these are based on appropriate scientific evidence and fully science-based. It also includes the general standard for the labelling of prepackaged foods. Codex considers some other general standards such as food hygiene, food additives, contaminants and toxins in food and also for irradiated foods. All these are of high importance in protecting consumers' health and are based on relevant scientific issues. These may also include maximum residue limits for pesticides and veterinary drugs and maximum limits for food additives and contaminants.

### **Nutrition labelling in Codex**

Codex has developed *Guidelines on Nutrition Labeling*. These Guidelines are based on the principle that no food should be described or presented in a manner that is false, misleading or deceptive. The Guidelines include provisions for voluntary nutrient declaration, calculation and presentation of nutrient information. The Guidelines on Claims establish general principles to be followed and leave the definition of specific claims to national regulations.

In the framework of Codex, matters relating to nutrition are of the competence of the Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU) while the Codex Committee on Food Labeling (CCFL) is responsible for the elaboration of general texts on labelling and the endorsement of labelling provisions in individual Codex standards.

The following basic food labelling texts were elaborated by the CCFL:

- General Standard for the Labeling of Prepackaged Foods (Codex Stan 1–1985 (Rev. 1–1991)).
- General Guidelines on Claims (CAC/GL 1–1979 Rev. 1–1991)).
- Guidelines on Nutrition Labeling (CAC/GL 2–1985).
- Guidelines on Use of Nutrition Claims (CAC/GL 23–1997).

The *General Standard* defines mandatory requirements for the labelling of all foods, which correspond to the essential requirements necessary to provide a clear description of the product to the consumer.

The *General Guidelines on Claims* establish general principles to be followed in order to ensure that no food is described or presented in a manner that is false, misleading or deceptive or is likely to create an erroneous impression regarding its character in any respect. Further definition of specific claims is left to national authorities to regulate.

### **Guidelines on nutrition labelling**

The Guidelines are based on the principle that no food should be described or presented in a manner that is false, misleading or deceptive and that any claims made should be substantiated, nutrient declaration being mandatory only when claims are made.

The purposes of the Guidelines on Nutrition Labelling are:

- 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 nutritional claims are made without nutrition labelling.

### **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.

### **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.

### **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.

### **Guidelines on use of nutrition claims**

These Guidelines were developed in order to supplement the *General Guidelines on Claims* in view of the multiplication of such claims on the market, and the need for governments to regulate them to provide clear definitions and prevent confusion for consumers.

The Guidelines provide a number of definitions for the claims covered (nutrient content, comparative claims, nutrient function claims) and general requirements concerning consumer information in relation with claims. In particular, any food for which a claim is made should be labelled with a nutrient declaration, in accordance with the *Codex Guidelines for Nutrition Labeling*.

The Guidelines are applicable to all foods and define the conditions (nutrient contents) corresponding to the following nutrition claims:

- Low: energy, fat, saturated fat, cholesterol, sodium;
- Very low: sodium;
- Free: energy, fat, saturated, cholesterol, sugars, sodium.

The definition of conditions for claims concerning protein, vitamins and minerals, was completed by the last

session of the Committee on Nutrition and Foods for Special Dietary Uses and were submitted to the Commission for adoption in 2001.

The questions concerning the definition, method of analysis and claims for fibre have not yet been solved.

- In addition to the above absolute claims, comparative claims are also addressed by the Guidelines and the conditions of the comparison are defined in order to provide accurate information to the consumer, including the use of the terms 'reduced' and 'light'.
- General requirements concerning nutrient function claims and claims related to dietary guidelines or healthy diets are also included in the Guidelines, but health claims as such are not covered by the Guidelines at this stage as they are currently under consideration by the Committee on Food Labeling.

### **Nutrition policy**

The Guidelines on Use of Nutrition Claims specify that nutrition claims should be consistent with national nutrition policy and support that policy. Only nutrition claims that support national nutrition policy should be allowed. It is especially important to establish a link between nutrition labelling provisions and nutrition policy as a whole. In this respect, Codex texts on nutrition and labelling provide guidance to governments, who can then develop further their national regulations and requirements on the basis of the needs of their population.

The impact of nutrition labelling in improving the nutritional status of the population cannot be dissociated from nutrition education. Consumers should be able to make the best use of the information provided on the labels and they can do so only if they understand how to improve their nutritional status through a balanced diet. The information provided on the label will be useful if consumers have enough basic knowledge of nutrition to be able to make an informed choice.

### **Conclusions and challenges ahead**

As indicated earlier nutrition information provided on labels should be truthful and not mislead consumers. At the same time, labelling regulations should provide incentives to manufacturers to develop products that promote public health and assist consumers in following dietary recommendations.

All of these concerns are directed not only to statements made on the food label but also to advertising for the food products. As the capacity for rapid and extensive worldwide communication grows along with the development of global brands, advertising claims about the nutritional qualities of foods have the possibility of wide use. Consideration should be given to their regulation and procedures for enforcement of standards. Moreover, the concern about claims and their potential to mislead consumers extends to restaurants and food service operations. However, rules should not be so strict as to be a disincentive for food manufacturers or providers to formulate improved products and communicate information to the public.

In view of this it may be said in conclusion that nutrition labelling by itself cannot solve nutrition problems. It should be seen as one of the elements of nutrition policy and should be envisaged in the larger perspective of consumer education, which in its turn is part of an overall development policy. Exchange of information at the regional and sub-regional level is important, as each country can learn from the experience of others and regional co-ordination and co-operation can be developed.

As the scientific evidence continues to emerge linking the nutrient content of foods to certain chronic disease conditions, public health policy and dietary guidance may shift

and vary from country to country. While such situations are often unavoidable, it is clear that greater consistency in approaches to nutrition labelling would result in fewer barriers to promoting international harmonization and in greater benefits for consumers.

We further hope for your support in the efforts in this respect of the Codex Alimentarius Commission, in developing, establishing and updating guidelines for nutrition labelling and nutrition and health claims. As this is part of the purpose of the present Seminar, this will certainly contribute to provide a constructive approach and useful recommendations for the benefit of countries in the region.