

# A STUDY OF NUTRITION AND HEALTH CLAIMS AND NUTRIENT PROFILING IN EAST-EUROPEAN COUNTRIES

Cristina CARAIMAN, Natalia HARTI, Adriana BÎRCĂ, Olga DESEATNICOVA

Universitatea Tehnică a Moldovei

## **Abstract:**

*European consumers are increasingly exposed to a wide variety of messages about the relationship between diet and health and there is widespread interest in the nutritional content of food. With agri-food production is the focal point of the economies of most developing countries, such food protection measures are essential. In this context, a new EU Regulation No.1924/2006 on nutrition and health claims established the first fully harmonized regime on the use of nutrition and health claims made on foods in the European Country. The paper presents the nutrient profiling in accordance of the new European regulation and the future perspectives of the implementation of the nutritional and health claims in East-European countries.*

**Keywords:** *health claims, nutrient profiles, labeling legislation, nutrient content claims*

## **Introduction**

“Nutrient profiling” is the classification of foods for specific purposes based on their nutrient composition. When classifying food products as eligible to bear claims, the potential of the food to adversely affect the overall dietary balance is the main scientific consideration. This consideration relates in particular to nutrients for which there is evidence of a dietary imbalance in EU populations that might influence the development of overweight and obesity or diet-related diseases such as cardiovascular disease or other disorders; they include nutrients that might be consumed to excess, as well as those for which intake might be inadequate.

A EU Regulation No.1924/2006 on nutrition and health claims established the first fully harmonized regime on the use of nutrition and health claims made on foods in the European Union. The Regulation requires that the setting of nutrient profiles should take into account the dietary role and importance of food groups and their contribution of nutrients to the overall diet of the population (or specific population groups).

Nutrient profiles are established by the European Commission and the Member States based on the recommendations of the European Food Safety Authority following consultation with manufacturers and consumer associations. Only those foods that comply with the official nutrient profiles may be associated with nutrition and health claims. The new European regulation is thus intended to ensure stricter control of such claims, which for consumers are synonymous with products of nutritional value. We start the study of the implementation of the nutritional and health claims in some East-European countries.

## **1. Nutrient profiling and consumer information**

In the context of the Regulation nutrient profiling is intended for the sole purpose of governing the circumstances in which nutrition and health claims may be made. The aims are to ensure that food labels carry the essential information in a clear and legible way, so that EU citizens are empowered to make balanced dietary choices. The European Commission proposed to make nutrition information on front-of-pack mandatory on nearly all processed foods for most food and drinks. Nutrition information has to be provided to support any nutrition or health claim made in relation to a product. Also, in line with the Regulation on the addition of vitamins and minerals and certain other substances to foods, nutrition information has to be provided if vitamins and minerals have been voluntarily added to the food.

As food labels can have a huge influence on consumers’ purchasing decisions, it is essential to take due account also of the nutrition aspects dealing with meat and meat products further and/or simultaneous to the ongoing general labeling proposal.

On 26<sup>th</sup> February 2008, the NDA Panel (Panel on Dietetic Products, Nutrition and Allergies) of EFSA delivered a scientific advice to assist the European Commission and Member States in defining nutrient profiles for food bearing nutrition and health claims. Nutrients such as saturated,

unsaturated, trans-fatty acids, sodium, dietary fibre, sugar content, energy density and total fat are all to be considered in the choice of nutrients in the “nutrient profiles” to be established by the Commission by 2009.

The main scientific consideration in establishing nutrient profiles is the potential of a food to adversely affect overall dietary balance, as defined by nutrient intake recommendations, with the overall aim to “avoid a situation where nutrition or health claims could mislead consumers as to the overall nutritional quality of a food product”, the opinion states.

Food groups with important dietary roles include vegetable oils, spreadable fats, dairy products, cereals and cereal products, fruit and vegetables and their products, meat and meat products, fish and fish products and non-alcoholic beverages.

There is evidence that, for a number of nutrients and food groups, a dietary imbalance can increase the risk of obesity and diet-related diseases (e.g. cardiovascular disease, cancer, diabetes mellitus, osteoporosis and dental disease) that are of importance for public health in the EU.

The public health importance of these nutrients and foods for European populations has also been identified in science based nutrient intake recommendations and food based dietary guidelines from national and international agencies. For a number of nutrients and foods (total fat, saturated, unsaturated and trans fatty acids, protein, carbohydrates, sugars, dietary fibre, salt, fruit and vegetables), population intake goals that have been established in a number of Member States are generally consistent (but not uniform), and aimed at the prevention of major diet-related public health problems in Europe.

For some of these nutrients, habitual dietary intakes often exceed recommended levels and should be reduced (e.g. saturated fatty acid and sodium) while for others (e.g. dietary fibre) habitual intakes are frequently lower than recommended levels and should be increased in order to promote health. Data on dietary intakes of children, adults and older people in 12 European Member States are available from the European Nutrition and Health Report (Elmadfa and Weichselbaum, 2005).

The methods used for estimating dietary intake varied among Member States and even within countries. The setting of nutrient profiles is an exercise that should take into account dietary recommendations, public health considerations, generally accepted scientific evidence relative to the relationship between diet, nutrition and health as well as other considerations of an industrial/commercial, cultural and dietary/culinary nature. Profiles should also, however, permit product innovation and should take into account the variability of dietary habits and traditions and the fact that dietary changes take time.

## **2. Nutrient profiling for the new Regulation on nutrition and health claims**

In accordance with the Regulation EC No.1924/2006, the term “nutrient profile” refers to the nutrient composition of a food or diet. “Nutrient profiling” is the classification of foods for specific purposes based on their nutrient composition. In this opinion, the purpose is solely for the regulation of nutrition and health claims made on foods.

The nutrient profile of the overall (habitual) diet is an important determinant of health and the nutrient profile of a “balanced” diet is defined by science based recommendations for intakes of energy and nutrients. Because diets are composed of multiple foods, overall dietary balance may be achieved through complementation of foods with different nutrient profiles so that it is not necessary for individual foods to match the nutrient profile of a “balanced” diet.

There are five particular areas of nutrient profiling on which the European Commission has sought advice. The Commission requests the European Food Safety Authority to provide relevant scientific advice for the setting of nutrient profiles focusing in particular on:

- whether profiles should be set for food in general and/or categories of food;
- the choice and balance of nutrients to be taken into account;
- the choice of reference quantity/basis for profiles;
- the approach to the calculation of the profiles, and
- the feasibility and testing of a proposed system.

### **Profiles to be set for food in general and/or categories of food.**

The first point to be considered is whether a single set of nutrient profiles should be set for all foods across the board, whether nutrient profiles should be set by categories of foods or whether there should be a combination of the two approaches.

A single set of nutrient profiles may be too rigid for taking into account the variety of products that are currently eaten as part of a varied diet across the EU. On the other hand setting profiles for an excessive number of categories of foods could be rather unmanageable both for the interested operators and for the controlling authorities. Finally, it should also be noted that the Regulation foresees the adoption of exemptions.

A system could combine both advantages of setting profiles in general and for a limited number of food categories or individual foods. An overall nutrient profile would be set from which derogations, adjustments and exemptions may be decided for a limited number of categories of foods or individual foods. These could be identified by taking account of the provision of Article 4(1):

"(b) the role and importance of the food (or of categories of food) and the contribution to the diet of the population in general or, as appropriate, of certain risk groups including children;

(c) the overall nutritional composition of the food and the presence of nutrients that have been scientifically recognized as having an effect on health."

Categories could be, for example, some or all of: vegetable oils; spreadable fats; dairy products; cereal products (bread, breakfast cereals); fruit products

The number of such categories, should be limited above all in the starting period, but may be able to evolve over time. The coverage of such categories should be based on scientific opinion and will help to avoid borderline issues. For example, when fruits are concerned, the limit of the category may be established by taking into account criteria such as of the presence of vitamins and the sugar added. This will concern manufactured products, such as fruits salads in light / heavy sugar syrup, fruits juices, fruits and vegetable juices, compote, compotes with added sugar, compotes with fruit juice concentrates (apple juice concentrate) and jams.

Specific conditions could also be discussed. Total exemption, or specific nutrient profiles could be proposed, depending on the characteristics of the product and its role in the diet. For example, should the saturated fat level for some dairy products (full fat milk, cheeses), vegetable oils and spreadable fats be considered as the only criterion to be taken into account to set specific nutrient profiles. Should sugar levels be adapted for breakfast cereals if those contain high levels of fibre. Opinion on the setting of nutrient profiles for foods bearing nutrition and health claims pursuant to Article 4 of the Regulation (EC) No 1924/2006.

Other foods or categories of foods may have a micronutrient content and bioavailability of particular interest for the intake of that nutrient, such as iron in meat products and may also be considered.

### **Choice and balance of nutrients to be taken into account**

Secondly, consideration should be given to the selection of the nutrients to be taken into account in setting the nutrient profiles. A number of important points should be given consideration here such as the ease of use of the model, its robustness, its cost effectiveness, avoiding undue distorting effects for the market and current scientific opinion about the role of nutrients in health, and the availability of data on composition of products that will allow the effective control of compliance.

In selecting such nutrients note should be taken of the provision of Article 4(1)(a):

"(a) the quantities of certain nutrients and other substances contained in the food, such as fat, saturated fatty acids, trans-fatty acids, sugars and salt/sodium" and of recital 12 which states that "the establishment of nutrient profiles should take into account the content of different nutrients and substances with a nutritional or physiological effect, in particular those such as fat, saturated fatty acids, trans-fatty acids, salt/sodium and sugars, excessive intakes of which in the overall diet are not recommended, as well as poly and mono-unsaturated fats, available carbohydrates other than sugars, vitamins, minerals, protein and fibre."

A key consideration in the choice of nutrients to take into account is whether a wide range of them should be used in the formulation of the overall nutrient profiles or some few pertinent ones, and depending, as the case may be, on the food category. Again the virtues of nutrient profiles based on a large number of nutrients should be weighted against the burden that such complexity would constitute.

The question of maintaining total fat, as a criterion for nutrient profiles could be considered, taking into account that total fat could include saturated fat, for which intake among the European population is too high, and fats such as mono and poly-unsaturated fatty acids, which are nutritionally preferable according to scientific evidence.

Trans-fatty acids, like saturated fat, are also among the fats whose consumption can be detrimental to health and therefore being among the nutrients to be taken into account. The alternative to consider would be to have the sum of trans fatty acids and saturated fat as a single criterion. Finally, an energy criterion could

be taken into consideration as an alternative to fat, as its level is well reflected in the food energy density. However, it should be taken into account that calories are already part of nutrition labeling that is compulsory when a claim is made.

Concerning the other nutrients listed in article 4 of the Regulation, i.e. sodium and sugars, it is crucial that they are covered overall, but also in the context of some food categories as already mentioned above.

Positive nutrients (one or more) could be considered for overall profiles or limited for some food categories. For example, the level of fibre in cereal products could be taken into account or the calcium level for some dairy products. Opinion on the setting of nutrient profiles for foods bearing nutrition and health claims pursuant to Article 4 of the Regulation.

### **The choice of reference quantity/basis for profiles**

The basis on which to base the nutrient profiles is important. Such basis is usually the energy or the weight/volume of the foods. However, with the increasing offer of products in portions, the basis of portion may merit consideration. The lack of uniformity in the portion sizes across the EU may, however, constitute a serious handicap for that basis. In any case, the choice of the basis should be adapted to the objectives of the exercise and should be the one that minimizes any undue anomalies in the market.

## **Conclusions**

With an expanding world economy, liberalization of food trade, growing consumer demand, developments in food science and technology, and improvements in transport and communication, international trade in fresh and processed food will continue to increase.

We start to study the nutritional and health claims in some East-European countries. Draw conclusions from existing research to see whether there are areas where further information would be useful, and to inform the direction that any additional research conducted in future could take. We will explicitly aim to identify and integrate the different and overlapping conceptual understandings of scientists from the different disciplines carrying out joined research.

The final aim will be the development of a research, integrating all the perspectives in a comprehensive account of the literature reviews, theoretical perspectives, empirical findings and guidelines and recommendations for food labeling in east-european countries.

## **References**

1. The EC nutrition and health claims regulation (1924/2006/EC)  
[http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l\\_012/l\\_01220070118\\_en00030018.pdf](http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l_012/l_01220070118_en00030018.pdf)
2. EFSA, NDA Panel. General guidance for stakeholders on the evaluation of Article 13.1, 13.5 and 14 health claims. EFSA Journal 9 (4), 2011, p. 2135.
3. Elmadfa I and Weichselbaum E Energy and nutrient intake in the European Union. European Nutrition and Health Report 2004. Forum Nutr 58, Karger, Basel, 2005 p.19-46.
4. Garsetti M, de Vries J, Smith M, Amosse A, Rolf-Pedersen N..Nutrient profiling schemes: overview and comparative analysis Eur J Nutr 46, 2007, p. 15-28.
5. <http://www.eurofir.net/temp/healthspclaimsspSRspFINALspPDF.pdf>
6. <http://www.uecbv.eu/doc/UECBV-N-058-2008-EN.pdf>