

## **IUNS Task Force on Redefining Dietary Quality**

### **Introduction.**

This Task Force worked initially on the development of a system that would enable organizations and countries to score Dietary Quality. More recently the focus has shifted to Nutrient Profiling, to be expanded in a joint project with WHO. This should include the development of a DQ scoring system, so both activities of this Task Force will be combined.

### **Dietary Quality Indicators.**

In this context, dietary quality considers both the positive and negative components of a diet in terms of its effect on human health and function. There is an urgent need to focus attention on the importance of Dietary Quality, in the context of the current global epidemic of chronic disease and unhealthy body weight (from stunting to overweight), and widespread micronutrient deficiencies. The fundamental cause of both micronutrient deficiencies, and overweight and chronic disease, is poor dietary quality, with the risk of overweight exacerbated by low physical activity. However, few policy makers are taking seriously the urgency of the need to improve the quality of the food supply, whether their responsibility is nutrition, agriculture, or public health.

Many characteristics of modern diets are not conducive to long-term human health e.g. levels of consumption of cereals and fats (especially refined cereals and trans fats), refined sugars (especially high fructose corn syrup), alcohol, salt, and excessive intakes of saturated fats from dairy products. Simultaneously with the trend to higher intakes of these foods world-wide, there has been a decline in intake of legumes, and in many groups, of fruits and vegetables. To a large extent, the international nutrition community has attempted to improve the widespread prevalence of micronutrient deficiencies through supplementation programs (most of which have had limited success) or fortification of staple cereals and condiments.

In order to study, evaluate and improve dietary quality (DQ), we need to review or develop DQ indicators using a system that is universally applicable and useful for this purpose. An index of DQ might encompass the following features.

- 1) A macronutrient composition and energy density consistent with reducing risk of diet related chronic disease;
- 2) a micronutrient composition and density consistent with minimizing risk of micronutrient deficiencies;
- 3) adequate intakes of bioactive food components that are now recognized as important for chronic disease prevention (e.g. phytonutrients);
- 4) foods that are acceptable in terms of culture, taste, ecological burden, and local agricultural practices.

Specific goals:

- To define a process for developing internationally useful, adaptable DQ Indicators (e.g. identify patterns or foods within a country or region that are consistent with best health outcomes). These indicators must be useful for action. (May have multiple outcomes).
- To use food balance or other information to evaluate DQ based on an appropriate range of intake of specific foods (e.g. need to increase or reduce animal source food intake, or increase fruit/vegetable and legume intake, by specific groups).
- To identify ways in which DQ could be improved in various environments, including agricultural and food processing and preservation strategies, with emphasis on the importance of having access to locally available quality foods, and traditional foods. Other approaches would include nutrition education, and novel strategies.
- Importantly, to obtain evidence-based data that increasing dietary quality is feasible, and effective.
- To identify ways to introduce the concept of DQ into the goals of national and international agencies, governments, and other relevant organizations.

#### Progress.

Progress to date on developing a system for DQ evaluation has been sporadic. A small workshop was organized by Task Force members at the Asian Congress of Nutrition in Taipei, which identified Popkin's International Dietary Quality Index as a model for further development and testing using existing dietary data. A similar meeting was held at the Experimental Biology meeting in San Diego, 2008. We have a fairly clear idea of how to proceed with this challenge but it is likely that the DQ index activity will be combined with a new Nutrition Profiling focus (see below). The two activities are related because creation of a nutritional quality index is part of many of the nutrition profile models that have been put forward, and will be helpful in validating the various models.

#### **Nutrition Profiling.**

The President of IUNS requested some time ago that this committee pay attention to the issue of Nutrient Profiling. However, we were aware that a large number of individuals, organizations and countries/regions were developing different systems for labeling or scoring foods on the basis of their nutrient content and healthful qualities. The primary goal of most such systems is to label foods that enable the consumer to quickly identify healthy options at the point of purchase, and to assist food companies to improve the quality of their products.

It has been difficult to see how the IUNS could take leadership of yet another system for Nutrient Profiling, so instead we have taken two different but linked directions.

The first is that we collaborated with Dr. Barry Popkin and others in the programming of a symposium on Nutrient Profiling at the ICN. The issues to be addressed are as follows. We recognize that there is a great deal of concern about the profusion of country and industry labeling systems and the lack of comprehension of current detailed food labeling. In addition, nutrient profiling models need to be evaluated in a range of countries and contexts. A great deal of research has occurred in selected countries and will be presented. Case studies of completed front-of-pack labels will be presented as examples. IUNS is mostly responsible for the last part of this symposium which will take a broader overview of the participation of the food industry, and the nutritional issues underlying profiling.

The second direction derives from the fact that we learned that WHO is also planning a Consultation on Nutrient Profiling, because they have many of the same concerns that IUNS does. With Dr. Francesco Branca of WHO, IUNS has agreed to collaborate in this Consultation, and to develop future possible roles for Adhering Bodies and nutrition societies in general, in validating, harmonizing and translating the nutrient profiling systems. More details of this collaborative activity will be discussed at an IUNS-WHO meeting at the ICN in Bangkok. Dr. Branca is also making a presentation of the WHO proposal in our ICN session.

Topics and speakers are as follows.

### **Front of the package labeling: concepts, research, and country case studies.**

Chairs: Prof. Barry Popkin, Director, Nutritional Epidemiology Division and UNC Interdisciplinary Obesity Center, University of North Carolina, USA, and Prof. Lindsay Allen, Director, USDA, ARS Western Human Nutrition Research Center, University of California, Davis, USA.

#### Topics and Speakers:

- Brief overview on current and future challenges. Dr. Barry Popkin, University of North Carolina, Chapel Hill.
- Concepts behind nutrient profiling. Dr. Michael Rayner, Director, Health Promotion Research Group, British Heart Foundation.
- Research on Front of Package impact: Prof. Jaap Seidell, Director, Institute of Health Sciences, Wageningen University..
- Mexico Case Study: Dr. Simón Barquera, Head, Department of Nutrition and Chronic Disease, Institute of Nutrition and Public Health, Cuernavaca, Mexico.

### **The Future of Nutrition Profiling and the Roles of the IUNS and WHO**

Chairs: Prof. Lindsay Allen, Director, USDA, ARS Western Human Nutrition Research Center, University of California, Davis, USA, and Dr. Francesco Branca, Director, Nutrition for Health and Development, WHO.

Topics and Speakers:

- The global food industry perspective: Richard Black, Senior Vice President for Nutrition, Kraft Foods Inc., Northfield, USA.
- WHO's perspective. Dr. Francesco Branca, Director, and Dr. Chizuru Nishida, Nutrition for Health and Development, World Health Organization, Geneva.
- Implications for nutritionists and the IUNS: Prof. Lindsay Allen, and Dr. Suzanne Murphy, Cancer Research Center of Hawaii, USA.