

## DEVELOPMENT OF FOOD-BASED DIETARY GUIDELINES FOR SOUTH AFRICA – THE PROCESS

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This paper reviews the motivation behind and the process of development of positive, practical, affordable, sustainable and culturally sensitive food-based dietary guidelines (FBDGs) to help South Africans over the age of 5 years to choose an adequate but prudent diet. The guidelines are based on the existing consumption of locally available foods and aim to address identified nutrition-related public health problems. The FBDGs consist of 10 short, clear and simple messages which have been tested for comprehension, appropriateness and applicability in consumer groups of different ethnic backgrounds in both rural and urban areas.

The guidelines are:

- Enjoy a variety of foods.
- Be active.
- Make starchy foods the basis of most meals.
- Eat plenty of fruit and vegetables.
- Eat dry beans, peas, lentils and soya often.
- Meat, fish, chicken, milk and eggs can be eaten every day.
- Eat fats sparingly.
- Use salt sparingly.
- Drink lots of clean, safe water.
- If you drink alcohol, drink sensibly.

These guidelines will have to be adapted for groups with special dietary needs. It is recommended that the guidelines could and should be used in the Integrated Nutrition Programme and that they could form the basis of nutrition education in South Africa. It is recommended that the guidelines should be regularly reviewed, based on their impact, changes in South African society due to socio-economic transition, and as new knowledge of nutrition-health relationships becomes available.

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One of the goals of the World Declaration and Plan of Action for Nutrition adopted at the 1992 FAO/WHO International Conference on Nutrition in Rome is the global elimination or substantial reduction of malnutrition, micronutrient malnutrition and diet-related communicable and non-communicable disease.<sup>1</sup> A strategy identified to accomplish this goal is the promotion of appropriate nutritional intake and healthy lifestyles.<sup>1</sup> The failure of nutrient-based guidelines to substantially influence dietary patterns of different populations stimulated another FAO/WHO initiative to establish the scientific basis for developing and using food-based dietary guidelines relating to practices and prevailing nutrition-related public health problems.<sup>2</sup> There has therefore been a change in focus from the traditional attention to nutrients to locally available foods.

Existing guidelines in South Africa are either nutrient-based<sup>3</sup> or aimed only at a population eating a typical Western diet.<sup>4</sup> Motivated by the FAO/WHO initiatives, the Nutrition Society of South Africa (NSSA) decided to form a focus or working group (WG) that could start the process of developing Food-Based Dietary Guidelines (FBDGs), and asked Professor H H Vorster to initiate the process. In a newsletter of the NSSA published in the *South African Journal of Food Science and Nutrition*,<sup>5</sup> volunteers were invited to serve on the WG to develop FBDGs that would be appropriate for the whole South African population.

### CHARACTERISTICS OF FBDGS

As mentioned, FBDGs should be based on locally consumed foods. They should address existing nutrient deficiencies and excesses, and the resulting nutrition-related public health problems of a specific country or community. In order to successfully change eating behaviour, a number of specific characteristics for FBDGs have been identified by the WG, based on the FAO/WHO recommendations. These include the following:

- Each guideline should have only one, easy, understandable, simple message. Guidelines should be formulated or illustrated in such a way that people from different cultures and literacy backgrounds will grasp their meaning.
- They should be 'user-friendly' and not confusing.
- They should be formulated in a positive way. No negative messages using words such as avoid, decrease, limit, cut out or eat less, should be used. The FBDGs should not create guilt feelings about, or negative associations with, foods.
- They should be compatible with the different cultures and eating patterns of the target population.
- They should be based on affordable, available foods which are widely consumed.
- They should be sustainable.

- They should encourage environmentally friendly agriculture.
- They should lead to selection of foods that are usually eaten together — in groupings that are compatible with existing dietary practices.
- They should address both over- and under-nutrition. They should help people to choose the most appropriate diet they can afford – encourage undernourished people to choose a more adequate diet and overnourished people to choose a more prudent diet.
- They should emphasise the joy of eating!
- They should be formulated and communicated to the target population using marketing skills based on the knowledge, perceptions, attitudes and behaviours of the target population.

## THE PROCESS OF DEVELOPING FBDGs FOR SOUTH AFRICA

During the first meeting of a group of volunteers on 19 May 1997 in Durban, the terms of reference, mandate, objectives, and composition of a representative WG were defined. The WG agreed that their mandate was to develop a core set of FBDGs to promote health for South Africans older than 5 years of age. The decision to develop separate FBDGs to promote health for South African children younger than 5 years was based on their specific dietary needs for growth and development, and their specific diet-related public health issues, mainly undernutrition.

The key objectives of the WG were to:

- create consensus within the group regarding the role of nutrients and dietary patterns in the public health profiles of South Africans
- test the consumer understanding, appropriateness and applicability of the guidelines
- write scientific support papers for each guideline, motivating its formulation, background and aims
- write an explanatory text on the FBDGs for the layperson for use by consumers and health personnel in nutrition interventions
- advise on how the guidelines should be incorporated into health and agricultural policies
- advise on the implementation and promotion of the guidelines, the development of appropriate education materials and monitoring impact on eating patterns
- adapt the guidelines for groups with special dietary needs
- contribute to a process in which the guidelines are reviewed every 5 years.

The WG decided to follow the process as advised by the FAO/WHO consultation<sup>2</sup> with adaptations where necessary for local conditions. Members of the WG volunteered to review the

South African literature to identify the nutrition-related public health problems, nutrient intakes of different groups, vulnerable groups, and relevant public health policies.

The second meeting in Pretoria on 22 October 1997 was in the form of a workshop in which a larger, more representative WG participated. Delegates from academia, NSSA, ADSA, the Medical Research Council (MRC), Department of Health, UNICEF, the agricultural sector, food industry and an observer from the FAO intensively debated the solicited reviews on the South African nutritional situation. Consensus was reached on the following realities and assumptions:

- Malnutrition, including under- and overnutrition, is associated with avoidable morbidity and mortality.
- In South Africa, malnutrition contributes to the different patterns of morbidity and mortality of different population groups and communities.
- Many South Africans are experiencing rapid urbanisation and acculturation, characterised by a nutrition transition that often results in both over- and undernutrition; a double burden of nutrition-related diseases is prevalent in many households and communities.
- Different types of ethnic food choices (including the combination of certain foods based on traditional African and Western food intakes) are compatible with good nutrition and health.
- Except for spoiled and contaminated food, there is no such thing as a bad food — only bad diets.
- Many factors influence food choices, and nutritional intake is but one of the controllable lifestyle factors which influence health. Therefore, usual food choices should be evaluated in the context of total lifestyle and living circumstances. In South Africa, socio-economic circumstances have a major influence on food choices and dietary patterns.
- Although South Africa produces enough food for all its inhabitants, and even exports food, many poor households are food insecure, especially in rural areas and in informal housing areas inhabited by people in transition.
- Food safety, mainly because of an increase in street vendors, may become a progressive problem in the future.

Based on the above discussions, a document was compiled indicating the relevant nutritional issues that could lead to a guideline (variety; meals; body weight; exercise and energy; carbohydrates (staples); fibre, vitamins and minerals; proteins; fats and sodium; water and alcohol; smoking and stress). The accompanying nutritional recommendations were indicated and a preliminary FBDG for each, with a motivation, was formulated. The scientific background in the South African context was summarised for each guideline.

This document and other relevant papers were circulated to volunteer participants of the workshop on FBDGs which

formed part of the 1998 Nutrition Congress held on 27 May 1998 at Sun City. Each guideline was discussed during this workshop in terms of its health relevance, scientific evidence, practical application, comprehension, prudence and adequacy.

Based on these discussions, a revised set of guidelines was compiled during a follow-up workshop in Cape Town on 1 August 1998. A protocol for testing these guidelines in a field study was developed and agreed on during a meeting on 18 January 1999 in Durban. The testing was done in focus-group discussions with women from different ethnic groups in rural and urban areas, initially in 2 of the 9 provinces of South Africa. The results of this process were recently reported by Love *et al.*<sup>6</sup> Discussions were held in the home language of the participants (English, Afrikaans, Zulu and Xhosa). The results of these evaluations were incorporated into the guidelines during a meeting on 18 January 2000 in Durban. During this meeting it was also decided that focus-group discussions would continue in other provinces to ensure that the perceptions of other ethnic groups and cultures would also be accommodated. A decision was taken to form additional WGs to investigate the development of FBDGs for specific priority groups such as HIV/AIDS sufferers, children younger than 5 years, the elderly, and pregnant and lactating women. The steps for writing of supporting texts for each guideline and further discussions with the nutrition community took place during a symposium at the Nutrition Congress in Durban on 15 August 2000.

## SPECIFIC PROBLEMS

Because of the complexity of nutrition-health relationships in South Africa's multicultural society, and the goal of having one set of guidelines for all, the development of the guidelines was a daunting task. Many issues, evaluated in depth and based on available evidence, could not be resolved with clear-cut answers. In these instances, the weight of the evidence and the particular South African situation guided the formulation of the guideline. Examples of these issues were the variety guideline, the absence of a separate dairy guideline, and a guideline on the intake of foods from animals.

The results from the testing of the preliminary guidelines<sup>6</sup> further influenced the formulation and working of the guidelines. The 'variety' guideline debate took into consideration the issue of affordability of variety in poor households, in contrast to the situation in the USA, where the elimination of this guideline was based on its suspected contribution to their obesity problem.<sup>7</sup> A separate guideline about milk intake was not included, based on affordability, dietary patterns and lactose intolerance in a large part of the South African population. However, the low calcium intakes of many South Africans, the importance of calcium in growth, development and prevention of bone disorders and also

possible prevention of hypertension, were acknowledged and contributed to the formulation of the 'animal food' guideline.

The guideline about intakes of meat, fish, chicken, milk and eggs was difficult to formulate in a positive way to be relevant for all South Africans. The available evidence suggests that during the nutrition transition, when more foods from animals are eaten, nutritional status improves.<sup>8</sup> The high prevalence of iron deficiency, especially in African children and adolescents, is a sound motivation for increased intakes of especially red meat. However, the convincing evidence that these foods also contribute to an increased saturated fat intake and risk of chronic diseases should not be ignored. Therefore, this particular guideline should be accompanied by nutrition education (information) to recommend optimal daily quantities.

## FUNDING OF THE PROCESS

The initial workshops to develop the FBDGs were funded by the South African Sugar Association and the South African Meat Board. Delegates from the food industry, Department of Health, Dry Bean Producers Organisation, the MRC and academia were funded by their own institutions. The evaluation of guidelines in field studies was funded by UNICEF. The FAO and International Life Sciences Institute jointly funded a group of South African delegates to share the South African experience with eleven other African countries during a workshop in Harare in October 1999.

## CRITICAL FACTORS FOR SUCCESS

In our review of the South African process, a number of factors which determined the steady progress and output of a set of thoroughly 'filtered' guidelines emerged. The most important is that the WG decided to choose a dedicated chairperson with sufficient time, 'vested interest' and the necessary background knowledge and expertise to lead and drive the process. It was fortunate that a private consultant dietitian, Ms Penny Love, was available as chair, that she could motivate the process as part of her PhD studies and that she could obtain funding for the extensive evaluation process. Another factor was that although limited in certain areas, sufficient information on the public health problems in South Africa, as well as nutrient intakes and dietary patterns of different groups, was available to serve as basis for the FBDGs. Other factors were sufficient funding, funding that allowed a totally objective agenda, the multidisciplinary nature of the WG and the extensive and open discussions during the various workshops. Clearly, these guidelines were developed in a highly participatory and consultative manner.

## THE WAY FORWARD

The present set of guidelines has been finalised after evaluation of their comprehension and practicality in different South African ethnic groups. A user-friendly explanatory text for health personnel and the consumer, showing how the application of the guidelines can lead to healthy eating, has been written by Ms Carol Browne (Guidelines for healthy eating for South Africans — unpublished data, 2000). The scientific support papers are published in this supplement of the *South African Journal of Clinical Nutrition*.<sup>9-18</sup> It should be noted that because ethnic differences in dietary patterns and consequently differences in nutrition-related disease profiles exist, these papers sometimes refer to different ethnic groups in South Africa. However, the guidelines have been developed as one set, to optimise nutritional status of all South Africans. The guidelines have been discussed at a special symposium of the 2000 Nutrition Congress. The next step should be the formulation of a strategy on how the guidelines should be implemented to improve dietary patterns of all South Africans, combined with the development of a protocol for evaluation of implementation and impact of the FBDGs. There are various models available for implementation, focusing on key target groups, key settings and key approaches. The most appropriate ones for the South African situation will require further deliberation. These guidelines could and should be used in the Integrated Nutrition Programme of the Department of Health and should form the basis of nutrition education in the Primary School Nutrition Programme and the national education curriculum of the Department of Education. For successful implementation, there seems to be agreement that modern marketing strategies should be used.

## CONCLUDING REMARKS

The development and evolution of these guidelines were characterised by lively debates and discussions. The WG considered each word carefully, and formulated each guideline based on available scientific evidence (or lack thereof) and the accepted characteristics of ideal FBDGs. However, the WG realised that the South African society is a society in transition, and that future nutrition research may reveal more about the relationships between nutrition and health. Therefore, the WG accepts that these FBDGs will have to be reviewed and adapted accordingly on a regular basis.

In the following scientific support papers<sup>9-18</sup> these aspects, as well as the need for specialised accompanying texts, addressing specific needs and situations of specific target groups during education and implementation, are repeatedly emphasised. In each paper, the main public health problem addressed by a specific guideline is highlighted. However, it should be noted that all the guidelines, in combination, were formulated to address these public health problems collectively.

The core of the working group consisted of a group of enthusiastic, highly skilled volunteers, each contributing her own expertise and experience to the process. We wish to thank them all, as well as the participants of the various workshops and symposia. A special word of thanks to Professor B M Margetts who assisted in designing the protocol for evaluation of the guidelines, and all the fieldworkers and subjects participating in the evaluation process. The members of this group (in alphabetical order) were: Ms Ann Behr, Dr Lesley Bourne, Ms Christine Broadhurst, Ms Carol Browne, Professor Karen Charlton, Ms Penny Love, Ms Joan Matji, Professor Eleni Maunder, Mrs N Maqoma, Ms Cynthia Mngigima-Dladla, Ms Engela van Eyssen, Dr Ingrid van Heerden, Professor HH Vorster, Ms Christa Welgemoed and Dr Petro Wolmarans.

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