DBN Review N° 1
A resource about dairy-based nutrition
A product of the Consumer Education Project of Milk SA
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This review describes the rationale behind country-specific food-based dietary guidelines (FBDGs) and the implementation of FBDGs in South Africa to guide dietary choices.

A publication for health professionals

Dairy *as part of the South African food-based dietary guidelines*

In response to an earlier directive by the Food and Agriculture Organization (FAO) / World Health Organization (WHO), aimed at eliminating world hunger and malnutrition,[1] the first set of food-based dietary guidelines (FBDGs) for South Africa were published in 2003.[2] The international directive called for country-specific FBDGs to be compiled, formulated as positive dietary messages that would convey information about healthy eating in terms of food rather than nutrients. FBDGs were further meant to make information accessible to the general public, set dietary goals that could be achieved with locally available foods and serve as basis for all nutrition-related messages and initiatives in a country so that a uniform body of information would be available to the population.

Revision of the South African food-based dietary guidelines

To keep pace with changes in dietary trends, socioeconomic conditions and disease patterns, FBDGs should be updated regularly.[1] For example, in Africa, the incidence of malnutrition rose from 17% to 27% between 1991 and 2012.[3] A change like this may be attributed to factors that negatively affect food security and dietary quality, such as rising food prices, unemployment, increasing urbanisation, an increasing dependence on fast foods and population growth. At the same time, obesity also appears to have been increasing, and currently South Africa is regarded as one of the most obesity-burdened countries in the world. In a recent survey (2016), 50% and 82% of South African women were found to be overweight by the age of 20 and 45, respectively.[4]

Such trends, pointing to diet-associated health decline, encouraged a revision of the initial South African FBDGs. The current set of FBDGs for South Africans aged 6 years or older are as follows:[5]

- Enjoy a variety of foods.
- Be active!
- Make starchy food part of most meals.
- Eat plenty of vegetables and fruit every day.
- Eat dry beans, split peas, lentils and soya regularly
- **Have milk, *maas* or yoghurt every day.**
- Fish, chicken, lean meat or eggs can be eaten daily.
- Drink lots of clean, safe water.
- Use fats sparingly. Choose vegetable oils, rather than hard fats.
- Use sugar and foods and drinks high in sugar sparingly.
- Use salt and food high in salt sparingly.

Have milk, *maas* or yoghurt every day

The most striking change in the revised FBDGs for South Africa is the addition of the guideline recommending the daily intake of milk, *maas* (fermented milk) or yoghurt.[5] Previous assumptions about South Africans' use of and preference for dairy products were revisited, with specific reference to the affordability of milk and the prevalence of lactose intolerance and osteoporosis. Rapid urbanisation and westernisation of the South African population encouraged researchers to study conditions such as lactose intolerance[6] and the positive health effects of dairy for preventing or managing a number of diseases other than osteoporosis. Nutritionists also realised that the popular fermented milk product *maas* is highly nutritious and is consumed by many South Africans, even those who are lactose intolerant.

According to the South African Health and Nutrition Examination Survey[4] of 2013, many South Africans' diets are deficient in vitamin A, thiamine (vitamin B_1), niacin, riboflavin (vitamin B_2), vitamins B_6, B_{12} and C, calcium, iron and zinc. Dietary variety and consumption of nutrient-dense foods such as milk, *maas* and yoghurt can help to prevent or combat such deficiencies.

Health benefits of dairy: Combatting a spectrum of diseases

The health benefits of dairy foods are impressive. Consuming milk and fermented dairy foods such as *maas* and yoghurt can help to lower blood pressure, reduce the risk of heart disease and reduce overweight and obesity, which, in turn, lower the incidence of type 2 diabetes.[7] However, the dairy intake of most South Africans is low: few people consume the recommended 500 ml (2 cups) of milk or *maas* a day. Nutritionists worldwide encourage the use of milk – whether fresh or fermented, in liquid or powder form – with energy-rich staple foods such as maize or rice. Seeing that milk is rich in high-quality protein, B vitamins and calcium, combining milk and staple foods can help to bring actual nutrient intakes closer to the recommendations for a balanced diet.

Researchers agree that it is difficult to achieve the daily recommended intake of calcium without the inclusion of dairy products in the diet.[7,8] Calcium deficiency before birth and during the infant years can hamper the development of a

strong skeleton and teeth and may lead to an increased risk of obesity, high blood pressure, osteoporosis[8] and heart disease later in life. It has also been suggested that 'brittle bone disease' is increasing in teenagers and young women who replace milk in the diet with carbonated (fizzy) drinks.

People trying to lose weight, especially women, also often cut dairy products out of their diets because of the assumed high fat content. However, full-cream, and fat-free milk contain 3.4 g, 1.5 g and <0.5 g of fat per 100 ml, respectively,[9] and therefore even full-cream milk can be considered a low-fat product. Slimmers can, in fact, benefit from including dairy products in their diets, as research has shown adequate daily consumption of low-fat dairy (three servings a day) to be linked to weight loss.

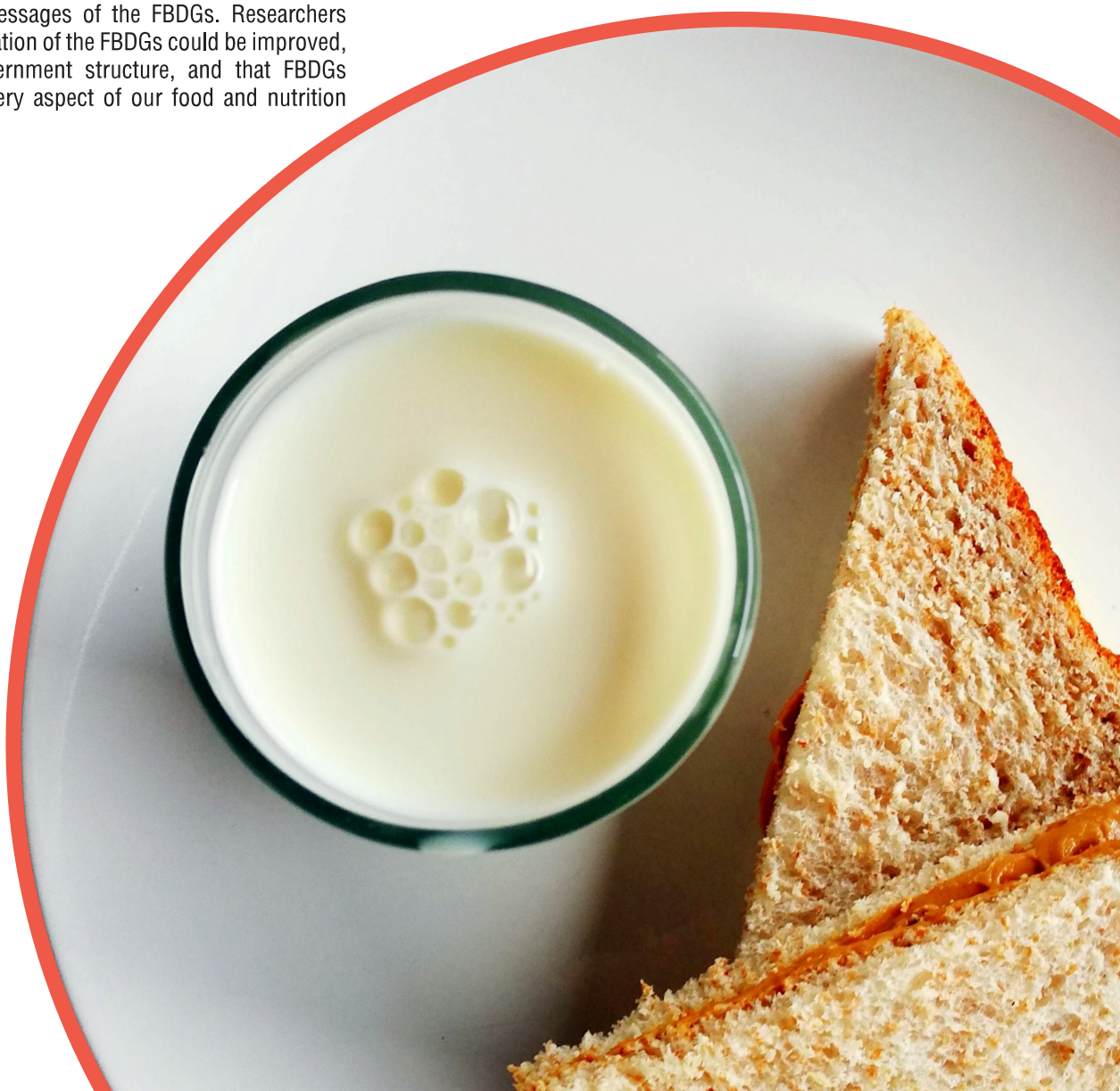
Food-based dietary guidelines in practice

FBDGs are used across North America, South America and Europe, and also in countries such as South Africa, Vietnam, India, Thailand and New Zealand.[2,10-15] More than 50% of the global population are therefore exposed to country-specific nutrition messages as a result of the initial FAO/WHO directive. Although little directed research is available on the uptake of FBDGs after publication, lessons learnt from across the world indicate that FBDGs should not be disseminated only in written form, but should permeate policy across multiple sectors and at various levels.

Unfortunately, this is not yet the case in many countries.[15] In South Africa specifically, observations show that there is a lack of trained staff, particularly at the community level, who can disseminate the messages of the FBDGs. Researchers suggest that communication of the FBDGs could be improved, specifically in the government structure, and that FBDGs should form part of every aspect of our food and nutrition policies.[15]

Conclusion

Training dietitians and other health professionals to communicate the FBDGs can be a first step towards realising the full potential of these messages. Therefore, being familiar with the revised South African FBDGs can help you advise your clients on healthy diet choices. Specifically, the guideline that recommends consumers to 'have milk, maas *or yoghurt every day' offers an accessible way for South Africans to avoid lifestyle diseases such as high blood pressure, heart disease, obesity and type 2 diabetes.*



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