

Editorial

The 18th International Congress of Nutrition takes place on African soil

For the first time the International Congress of Nutrition is being held in South Africa, and indeed in Sub-Saharan Africa. Hence, this marks a landslide event in the global arena of nutrition research. This 18th International Congress on Nutrition is being held in Durban in September 2005, and is appropriately set at a time in South Africa's history of 10 years of democracy. Many initiatives towards improving the nutritional status of the population have occurred during this time of which South Africa can be justifiably proud. Some of these will be mentioned briefly before discussing the contents of the current issue.

Since 1994, the new government in South Africa has retained nutrition, and its importance in health, high on its agenda. One of the first mileposts was the implementation of a national *integrated nutrition strategy* by the Nutrition Directorate of the Department of Health (DOH)¹ with specific focus areas targeted at household food security, micronutrient control, promotion of breast-feeding, growth monitoring, disease-specific nutritional support, food service management at state institutions, and nutrition promotion and advocacy. All these focus areas were developed with strategic objectives and target dates were set^{2,3}. Specific interventions that deserve mentioning are the School Feeding Programme, the Vitamin A Supplementation Programme, the National Food Consumption studies, food fortification, and a programme for people with HIV/AIDS and tuberculosis.

The School Feeding Programme, which was introduced in 1994, benefits more than five million primary-school learners daily⁴. Despite many teething problems, a qualitative survey indicates that the programme has made a major social contribution to schools in terms of difficult-to-measure qualities, such as having more alert children who benefit intellectually and emotionally⁴. Because unemployment remains high in South Africa, this programme makes a very valuable contribution to the feeding of needy children.

Since marginal vitamin A deficiency in South Africa was found to be prevalent in 33% of children aged 6–72 months in 1994⁵, the DOH introduced a supplementation programme as a primary preventative strategy to form part of routine mother and child health-care activities. Most provinces have now introduced this programme, which targets children aged 6–60 months and postpartum women in their 6–8-week period after delivery⁶. Furthermore, vitamin A supplementation is provided to

children who suffer from xerophthalmia, diarrhoea and measles.

A national and representative survey on the nutritional status of pre-school children was undertaken for the first time in South Africa in 1994. Prior to this, data on children were fragmented, since a large proportion of black children living in the 'so-called' homelands of the previous government were excluded from earlier studies. The DOH followed on from this survey by undertaking a National Food Consumption study in 1999⁷ and in 2005. The results of the study in 1999 clearly showed that many micronutrient deficiencies were present in the children. This led to the formation of a national task team and the mandatory fortification of wheat and maize meal in October 2003. Fortificants included vitamin A, thiamine, niacin, pyridoxine, folate, riboflavin, iron and zinc. The recent 2005 study will provide biochemical data on the effectiveness of the fortification programme⁸.

A nutrition intervention programme for people having HIV/AIDS and tuberculosis has been planned and will probably be introduced in 2005. This programme will provide an energy-dense meal and micronutrient supplements to those who qualify. When implemented, the programme will include nutritional screening, nutrition education and counselling, as well as the meal and supplements where required⁸. Presently, nutritional guidelines for such patients are available⁹.

The current issue of *Public Health Nutrition* is devoted to articles emanating from recent nutrition-related research in South Africa. Furthermore, it gives a summary of abstracts emanating from research undertaken in the rest of Africa since the journal was introduced in 1998. This was done to inform readers on research undertaken on this continent, although the majority is from Sub-Saharan Africa. The publication by Barr *et al.*¹⁰ on reducing iron-deficiency anaemia in adolescents in Nigeria was selected as a *Public Health Nutrition* classic based on its rigorous methodology and the fact that a paucity of these data (with solutions) is available in Africa.

It is interesting to notice the main areas of nutrition research that have been published in *Public Health Nutrition* on Africa since the journal's inception in 1998. The main topic has been micronutrients, particularly vitamin A, with 10 articles devoted to this, and one on iodine. Anaemia and iron deficiency accounted for seven articles, as did growth and dietary intake. There were six

articles on dietary methodology and the nutrition transition, and four on overweight and obesity. However, there was surprisingly little on HIV and AIDS (two), breast-feeding (three) and determinants of malnutrition (three). Of all the articles published there were only nine intervention studies, with the rest being cross-sectional and descriptive in nature. Only a handful made use of qualitative methodology, implying that nutrition scientists are still not making use of important tools to understand the underlying social reasons for many of the nutritional conditions they face.

Of course, not all the articles from Africa come to *Public Health Nutrition*; however, these abstracts do present some reflection of a trend in nutrition research on the continent. However, one would want to encourage more research on public health nutrition and HIV/AIDS, and more examples of intervention studies that have managed to solve some of the critical nutritional issues on this continent. In terms of global trends, it is predicted that non-communicable diseases will be escalating in the developing world over the next decade¹¹. Hence, it is possible that this area of research will also increase. Hitherto, there have only been two articles on cardiovascular diseases and one on diabetes in *Public Health Nutrition*. Since these diseases contribute significantly to the burden of disease in Africa, and are predicted to become the major causes of mortality in the developing world¹², it is essential that priority is given to research on these diseases and their prevention and management from a nutritional perspective.

This journal issue also contains new research from South Africa, and provides a glance at some important nutritional problems it is currently facing. We have tried to provide a balanced perspective by selecting publications that reflect nutrition in both communicable diseases and non-communicable diseases, i.e. the double burden. These should reflect some of the current nutritional problems to differing degrees in South Africa, as well as elsewhere in Africa.

The prevalence of the double burden is clearly illustrated by four publications on this theme^{11,13–15}. The THUSA (Transition and Health during Urbanisation of South Africans) study¹¹ very succinctly summarises the effects of urbanisation on the health and nutritional status of the black population living in the North West Province, and different phases of nutritional transition. Kruger *et al.*¹³ provide an overview on overweight and obesity in South Africa, and highlight the importance of the identification of high-risk patients at primary care level, which receives little attention at present. Mciza and co-workers¹⁴ focus on the development of an instrument to measure body image and satisfaction among black women and their daughters. The importance of this cannot be over-emphasised since there are few local instruments to use when evaluating, for example, the causes of obesity. African researchers have to rely on instruments developed in Europe or the USA, which are frequently very inappropriate. Hence, more research in this regard is needed, and local culturally

sensitive instruments should be developed. A study from a typical rural area in Limpopo Province indicates that overweight and stunting coexist in black pre-school children, and that many complex interactions related to the causality of these two conditions are present¹⁵. The authors emphasise the importance of weight and length at birth, and at 1 year, and recommend that these be used as biological markers for nutritional status at the age of 3 years and possibly even later.

Another area that has been very under-researched in South Africa, and the rest of Africa, is related to the nutritional status of the elderly. There are many barriers restricting research done on the elderly in Africa. First, since these people are generally living with their families (which is culturally acceptable) and not in homes for the elderly, it is difficult to locate them when doing dietary surveys, particularly in rural villages. Second, the determination of nutritional status may also be problematic, and it is difficult to identify those who are in serious need of nutrition intervention. Therefore, the locally validated screening tool developed and described herein by Charlton *et al.* makes a very important contribution to the evaluation of health status of the elderly¹⁶. This also paves the way for future research in the elderly on this continent.

One of the highlights of nutrition research in South Africa was the National Food Consumption Survey that was undertaken in 1999. An overview of these results is presented¹⁷ and shows that undernutrition is still a major concern in South Africa, with levels of stunting which are unacceptably high. Furthermore, it highlights the high prevalence of dietary micronutrient deficiencies and the sub-optimal energy intakes in a large proportion of children. One of the main outcomes of this study was the introduction of mandatory fortification, mentioned earlier. In this regard, a publication on evaluation of the fortification of maize meal in South Africa is a first since the mandatory introduction of micronutrients to wheat flour and maize meal in 2003¹⁸. The researchers were able to demonstrate a positive effect of fortified maize meal on weight gain and some variables of vitamin A status in 1–3-year-old children, confirming that such fortification will be an effective strategy to address micronutrient deficiencies in South Africa.

Many challenges will be facing the Nutrition Directorate of the DOH in South Africa in the next decade, including the fact that they will have to select priorities and keep in mind both sides of the double burden. In this regard, it is important that short-term and immediate problems of nutrition, such as undernutrition, should not be addressed at the expense of non-communicable diseases, which require solutions for prevention in the long term.

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