Obesity in women from developing countries is a growing phenomenon, even though the rate is still relatively low in certain areas, namely South Asia (0.1%), sub-Saharan Africa (2.6%), and the Caribbean and Latin America (9.6%). In North Africa and the Middle East the prevalence of obesity is already 17.2%, not much lower than the 20.7% found in the USA. Thirty-six per cent of urban black women and 25% of rural black women in South Africa are obese. In South Africa as a whole, 30% of women are obese.1 Obesity in black women is a significant health problem in South Africa and poses the way for diseases such as diabetes, hypertension, stroke, and certain cancers, all of which are prevalent in black women.2

The article on obesity in black urban women by Puoane et al. in this issue of the Journal (p. 6) makes some salient points regarding the physical and social issues around obesity in black women in a township in Cape Town. The most important point is that black women feel about ideal body size, which is much flaunted by the media and valued in Western society, and secondly, how they feel about their own body size. Black women find themselves in a dilemma. On the one hand their culture and traditions demand a bigger body size as representing health, wealth and dignity in a woman, while on the other hand they are subjected to increasing pressure from Western norms to conform to an ideal thin figure. Culturally the latter may give rise to being regarded as unhealthy, poor and sick. The fear of social stigma associated with thinness and being HIV-positive is a very real one, which may encourage the adoption of overweight as a countermeasure.

Similar findings with regard to culture and tradition were noted in young black female students entering university for the first time.3 On the one hand it was found that there was more realism (accuracy) regarding weight status and body shape (compared with white female students), most probably linked to cultural norms. On the other hand there were definite signs of assimilation of Western norms regarding body shape and perceived ideal weight. Already there was evidence of low self-esteem associated with being overweight, weight reduction efforts, body shape dissatisfaction, disordered eating patterns and dietary restraint. Clearly, young black women were experiencing similar dietary problems to those of young white women.

Few studies in South Africa have examined factors associated with weight gain in black women. Hence the underlying drivers are still largely open to speculation. One study undertaken in an economically active population identified risk factors for overweight and obesity as being black ethnicity, inactivity, less than 7 years of schooling, and at least one overweight parent.4 Others have ascribed the obesity epidemic to the rural-urban transition, including electrification, reduced physical activity, increased susceptibility to obesity, and increased availability of energy-dense foods, particularly fat-rich foods and low-fibre carbohydrates.5 Puoane et al. indicated that the women they studied blamed the cheap fatty foods they ate regularly as being responsible for their overweight status. The researchers also drew attention to the fact that the participants in the study consumed very large portion sizes of high-fat foods.

Nevertheless, whatever the causes, it must be recognised that the pandemic needs to be halted as a matter of utmost urgency. Furthermore, it is recognised by many researchers working in the field that the problem needs to be identified and addressed in childhood, since overweight children and adolescents frequently become overweight and obese adults.6 To date there have been few community interventions tackling obesity and overweight in children in South Africa, although it is recognised that the school setting would make an ideal venue for communication of a healthy diet and physical activity in the ongoing prevention and management of overweight. Numerous intervention studies in developed countries have shown small yet modest success in teaching children to adopt desirable behaviours aimed at improving lifestyle. Since stunting has also been shown to be a risk for later obesity, it stands to reason that programmes addressing underweight should ensure that factors relating to the prevention of overweight are included. Ideally, interventions should address all aspects of malnutrition.

Over the past two decades there has been a significant number of international intervention studies aimed at reducing cardiovascular risk factors, including obesity in elementary school children. Some of the most widely published of these are the Child and Adolescent Trial for Cardiovascular Health (CATCH),7 Pathways,8 Cardiovascular Health in Children (CHIC),9 Heart Smart,10 Planet Health11 and the San Diego Family Health Project.12 Some of the health benefits derived from these studies in the intervention groups are, inter alia, reduced total cholesterol, increased high-density lipoprotein cholesterol, reduction in percentage body fat, increased health knowledge (diet, activity, smoking), increased aerobic power, increased physical activity outside school, improved diet with decreased fat and saturated fat intake, decreased prevalence of obesity, improved school meals, decreased risk factors for obesity, and decreased TV watching time. However, it is important to note that the intervention studies examined generally only show one or two of these

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"Big is beautiful" — and unhealthy and confusing?

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positive outcomes and frequently do not show physiological changes.

The majority of successful interventions have targeted multiple risk behaviours and most have had the following in common: (i) they have targeted children in Grades 3 - 5; (ii) they have used the school setting as the venue for intervention, which has generally taken place over 2 - 3 years; (iii) they have used trained teachers to undertake the intervention during school periods; (iv) they have focused on changing dietary behavior and increasing physical activity; and (v) they have included the families of the participating children.

The writing is on the wall. If health educators are going to arrest and reverse the obesity pandemic in adults, particularly black women, they are going to have to introduce cost-effective and sustainable health promotion interventions in the schools.

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