Socio-demographic profiles and anthropometric status of pre-school children

In the current issue of the Journal, Smuts et al[1] report the results of a study of the socio-demographic profiles and anthropometric status of pre-school children in four rural districts, two in the Eastern Cape (EC) and two in Kwazulu-Natal (KZN). Although data were collected on 1000 children in each district up to the age of 71 months, only data of children up to the age of 59 months (under the age of five years) are reported. The study was carried out in 2003 as a baseline situation assessment prior to the introduction of an intervention programme.

The socio-economic markers of these rural households are probably representative of rural areas in most of South Africa and make depressing reading. While there were differences between the districts, overall only 16% of households had running water in the home, while 50% still obtained their water from rivers. Only 24% of households had electricity in the home and open wood burning stoves were used for cooking in 71% of homes. Child support and pension/disability grants were major sources of income.

There was one major bias in this study - the identification of households with children under the age of six years was made through a questionnaire given to primary school children in these districts. Thus first born children were likely to be excluded from the study. It is difficult to determine whether this affected the results in any way, but it is possible that some of the poorest households whose children did not go to school may have been excluded.

Of infants <12 months of age, 12-13% were found to be stunted, 6% were underweight for age and 16-18% were overweight, depending on the province. Breast feeding was initiated in almost 100% of infants, but the prevalence of mixed feeding (breast and bottle) in infants younger than six months of age was high, particularly in the Eastern Cape where it was 50% highlighting the need to put programmes in place to encourage and support breast feeding women to practice exclusive breast feeding during this period. The rates of stunting after the age of a year increased to around 30% in EC and over 20% in KZN. This study used the Epi Info 2000 software package to analyze the anthropometric data. A recent study reported that the newer World Health Organization (WHO) Child Health Growth Standards, which were based on healthy breast fed infants, give higher rates of stunting than the reference growth curves previously used.[2] Since two-thirds of the infants in this study were breast fed beyond a year of age, the WHO standards would be appropriate for this study and rates of stunting are likely to be even higher.

The authors compared the anthropometric status of children over a year of age with the findings of the South African Vitamin A Consultative Group study done in 1994[3] and concluded that the results of their study showed that the nutritional status of children in KZN was worse than that found in the 1994 study, while there had been no change in EC. They rightly caution against direct comparison with the 1994 study. However, there are a number of other sources of data that confirm deterioration in the health status of young children in South Africa over the past 10-15 years. Amongst these is a UNICEF report that was presented to the international Interparliamentary Union Meeting in Cape Town in April 2008[4] indicating that under-five mortality in South Africa increased from 60 per thousand live births in 1990 to 69 in 2005 and meticulously collected data in the rural Bushbuckridge area close to the Kruger National Park reflecting a much greater increase from 37 per thousand live births in 1992-3 to 84 in 2002-3.[5] This increase is in large part due to the catastrophic HIV/AIDS epidemic that was only starting to make an impact in the early 1990s. Indeed the UNICEF report attributes 57% of all under-five deaths in 2005 in South Africa to HIV/AIDS. HIV/AIDS is certain to be a significant factor in the lack of improvement in nutritional status reported in this issue by Smuts et al. However, as reported recently be Saloojee et al,[6] also from a study in the Bushbuckridge area, traditional

risk factors such as poor nutrition, parental disadvantage and illness, poverty and social inequality still play a major role in the prevalence of severe malnutrition.

It is clear that intervention strategies to improve the health and nutritional status of children under the age of five need to be comprehensive. A nutritional intervention programme needs to be coupled with strengthening of the prevention of mother to child transmission of HIV, increased availability and utilization of quality health care facilities as well as an improvement in the socio-economic conditions of the rural and urban poor in South Africa.

Peter A Cooper
Department of Paediatrics,
University of the Witwatersrand and Johannesburg
E mail: Peter.Cooper@wits.ac.za

References

1. Smuts CM, Faber M, Laubscher JA, Oelofse A, Benade AJS, Dhansay MA. Socio-demographic profiles and anthropometric status of 0- to 71-month-old children and their caregivers in rural districts of the Eastern Cape and KwaZulu-Natal provinces of South Africa. S Afr J Clin Nutr 2008;21(3):117-124.
2. De Onis M, Onyango AW, Borghi E, Garza C, Yang H; WHO Multicenre Growth Reference Study Group. Comparison of the World Health Organization (WHO) Child Growth Standards and the National Center for Health Statistics/WHO International growth reference: Implications for child health programmes. Public Health Nutr 2006; 7:942-947.
3. Labadarios D, Van Middelkoop A, Coutsioudis A, et al. Children aged 6 to 71 months in South Africa, 1994: their anthropometric, vitamin A, iron and immunisation status. Isando: South African Vitamin A Consultative Group (SAVACG); 1995.
4. Tracking progress in maternal, newborn & child survival. The 2008 Report. The United Nations Children's Fund (UNICEF); New York 2008.
5. Kahn K, Garennne ML, Collinson MA, Tollman SM. Mortality trends in a new South Africa: Hard to make a fresh start. Scan J Public Health 2007; 35 (Suppl 69): 26-34.
6. Saloojee H, De Maayer T, Garenne ML, Kahn K. What's new? Investigating risk factors for severe childhood malnutrition in a high HIV prevalence South African setting. Scan J Public Health 2007; 35 (Suppl 69): 96-106.

Contact details for membership application

Association for Dietetics in South Africa (ADSA)
www.adsa.org.za
PO Box 868, Ferndale, 2160
Tel: 0861002372
Fax: 011 789-1385
E-mail: info@adsa.org.za

The Nutrition Society of South Africa (NSSA)
www.nutritionsociety.co.za
Administrative Secretary
Jacqui Lochner
PO Box 1697, Brits, 0250, South Africa
Cell phone: 082 667 4723
Fax: 012 521 3510
E-mail: admin@nutritionsociety.co.za

The South African Society of Parenteral and Enteral Nutition (SASPEN)
www.saspen.com
SASPEN Secretariat
C/o Dept of Human Nutrition
Stellenbosch University and
Tygerberg Academic Hospital
Fransie Van Zijl Avenue, Clinical Building
Tygerberg 7505, South Africa
E-mail: saspen@sun.ac.za