From undernutrition to overnutrition in South Africa

South African eating patterns have shifted from undernutrition to overnutrition in the last 40 years, with increases in the average per capita intake of calories by about 300 kilocalories or 12%, from 2 603 kilocalories per day in 1962 to 2 921 kilocalories in 2001, as well as in the amounts of fat (from 61.2 g to 79 g), proteins (from 68.4 g to 75.1 g) and carbohydrates (from 445 g to 478 g). This would suggest that on a national level more food is available to consumers, but the increase in fat consumption does not bode well for the health of the nation and will influence the emergence of chronic diseases.

This is among the conclusions of a new report from the Medical Research Council, entitled 'Dietary changes and the health transition in South Africa: Implications for health policy'.

The report notes the different dietary intakes among the different ethnic groups, with the white, coloured and Indian populations having mean carbohydrate intakes less than 55% E (% energy), mean fat intakes greater than 30% E, and added (free) sugar intakes greater than 10% E, i.e. a typical Western diet. On the other hand, rural blacks had a strict prudent diet with a mean fat intake less than 20% E, carbohydrate intake greater than 60% E and a free sugar intake less than 10% E, while urban blacks had mean intakes between these two limits, with studies showing that the mean intake of fat increased from 24% E to 32% E in 19-44-year-olds with increased time spent in the city, while mean carbohydrate intake decreased from 61% to 53% E – trends indicative of a nutritional transition taking place.

The report also notes that undernutrition and its associated outcomes of stunting and underweight, as well as micronutrient deficiencies are still prevalent in children. However there is also a high prevalence of obesity, not only in children but also in adults, and in particular in women, where it ranges from 21% to 31% in different population groups. In males the prevalence of obesity has been found to range from less than 10% in most population groups to 21% in white males.

Given that more than half of the population is sedentary at work and during their leisure time, these findings in turn help to explain the increased prevalence of cardiovascular disease, diabetes, hypertension, dyslipidaemia and certain cancers, as does the high prevalence of tobacco and alcohol use, particularly in the youth.

With an escalating problem regarding chronic diseases in the next decade the report recommends that health authorities develop successful intervention programmes aimed at health promotion in children, and which utilise the school environment as a vehicle for change and adoption of a healthy lifestyle. Furthermore, the health service provision in the country should move away from exclusively providing for acute illnesses to include patient-centred chronic disease care.

Source: **www.mrc.ac.za**

Chronic diseases and diet and lifestyle changes

Many of the diet and lifestyle interventions in low and middle-income countries are relatively recent, and few have documented reductions in the rates of major chronic diseases. However the experience of many high-income countries in reducing rates of coronary artery disease (CAD), stroke, and smoking-related cancers strongly suggests that similar benefits will emerge in the developing countries, according to the Disease Control Priorities Project's new publication *Disease Control Priorities in Developing Countries (DCP2)*.

Chronic diseases, until recently common only in high-income countries, are now becoming the dominant sources of morbidity and mortality worldwide.

DCP2 highlights a range of interventions for reducing the incidence of these diseases, including avoiding tobacco use, maintaining a healthy weight, maintaining daily physical activity and limiting television watching, and eating a healthy diet, as well as educational interventions and the roles of transport, environmental and economic policies. While the introduction of specific interventions will depend on local physical and cultural conditions, an overall objective is to develop comprehensive national and local plans that take advantage of every opportunity to encourage and promote healthy eating and active living, it says.

DCP2 also identifies a number of outstanding research and development priorities. These include:

- Conducting randomised trials of the use of folic acid and alpha-linoleic acid to prevent CAD in developing countries. These interventions cost little, and the potential benefits are large and rapid.
- Developing prospective cohort studies of dietary and lifestyle factors in developing and transition countries to refine the understanding of risk factors in those contexts. To date, almost all such studies have taken place in Europe and North America.
- Developing surveillance systems for chronic diseases and for major risk factors, such as obesity, in developing countries.
- Developing additional multifaceted, community-based demonstration programmes in developing countries to document the feasibility of lifestyle changes and to learn more about effective strategies.
- Conducting detailed cost-effectiveness analyses of various prevention strategies to modify dietary and lifestyle factors.

Source: **www.dcp2.org**