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Topic: Community health and nutrition programs

Title: Nutrient patterns of rural and urban South African men and women in 2005 and 2010 – The PURE study

Presentation Type: Oral

Introduction: Nutrition transition (NT) results in dietary changes in populations from prudent (low-fat, low-energy) to imprudent (high-fat, high-energy) diets. Consequently, developing countries are also suffering from the global burden of disease. South Africa is in the midst of rapid NT. This study identified nutrient patterns of rural and urban black South African men and women.

Methods: Making use of twenty-seven nutrients derived from quantified food frequency questionnaires administered in the South African arm of the Prospective Rural and Urban Epidemiology study, principle component analysis were used to identify nutrient patterns. Rural and urban men (N:2005=577;2010=103); (N:2005=577;2010=103) and women (N:2005=388;2010=133); (N:2005=578;2010=147) were included in 2005 and 2010.

Results: The first four patterns retained explained 80% and 81% of diet variance for urban and rural women and 79% and 77% for urban and rural men. The “plant protein, carbohydrate and fibre driven” pattern explained the largest proportion of variance for rural women in 2005 (34%) and 2010 (28%), and for urban women in 2005(34%). This shifted to “animal protein and fat driven” in 2010 (29%). In men the “animal protein and fat driven” pattern explained the largest proportion of variance for both rural and urban respectively in 2005 (29% and 28%) and 2010 (34% and 36%).

Conclusion: The proportion of the animal and fat driven nutrient patterns in men emphasise the role of these nutrients in their diet and should be considered for strategies addressing obesity and other NCDs. In women a shift in patterns were observed suggesting that the NT is progressing.