P51

Non-communicable disease risk, lifestyle factors and socioeconomic position of Africans in transition: the THUSA study

A Kruger1, HH Vorster1, CS Venter1, BM Margetts1, UE Macintyre2

1Africa Unit for Transdisciplinary Health Research (AUTHeR), North-West University, Potchefstroom Campus, South Africa
2Institute for Human Nutrition, University of Limpopo (Medunsa Campus), Medunsa 0204, South Africa

Background – In many developing countries in advanced stages of the nutrition transition, the burden of non-communicable diseases (NCDs) has shifted from the rich to the poor. In South Africa, the African poor population is most affected by rapid urbanisation and the nutrition transition. It is not clear where the burden of NCDs lies in this population group.

Objectives – We tried to answer this question by comparing NCD risk factors within African groups of different socioeconomic positions (characterised by total household income and education level) and lifestyle (smoking habit, physical activity and nutrient intakes) who participated in the THUSA study from 1996-1998.

Design – The THUSA survey was a cross-sectional population-based epidemiological study which examined the influence of urbanisation and related changes in lifestyles and eating patterns on health and disease risk. A total of 1854 “apparently healthy” African volunteers were recruited from 37 randomly chosen sites in rural and urban areas of the North-West Province of South Africa.

Outcomes and Conclusion – The results indicated a high prevalence of obesity among women of all socioeconomic groups. Although the men and women with the highest socioeconomic position experienced the benefits of a wealthier lifestyle with significantly lower serum glucose levels, systolic blood pressures, higher micronutrient intakes, and fewer smokers, consistently higher total and saturated fat intakes, serum total and LDL-cholesterol levels and body mass indexes suggest that even at that point in time and probably in the foreseeable future, the burden of NCDs will also be carried by those Africans with higher socioeconomic positions.

P52

Dietary acculturation among Chinese in New Zealand in relation to the risks for type 2 diabetes

Y Jin1, J Coad1, J Lawless2

1Institute of Food, Nutrition and Human Health, Massey University, Palmerston North, New Zealand
216 Gunderman Rd, Ithaca, NY 14850 USA

Background – Chinese is one of the largest Asian migrant groups in New Zealand; the acculturation process affects their food choices, eating habits and lifestyle.

Objectives – To classify participants by their different acculturation levels; to examine the association between dietary acculturation levels and the presence of risk factors for type 2 diabetes.

Design – Acculturation and food frequency questionnaires were used to collect information about the acculturation levels and recent eating habits of 46 self-selected participants. Three 24-hour dietary recalls were also used to gather dietary information. Body weight, height, waist and hip circumferences were measured to estimate the risks for type 2 diabetes. Fasting serum glucose (FG), glycosylated hemoglobin (HbA1c) and total cholesterol (TC) were measured among those who volunteered to undertake blood tests.

Results – 6% of the participants had abnormal FG (≥ 6.0mmol/l) and HbA1c levels(>6%), and 45% of the females and 54% of the males had total cholesterol levels over 5.0mmol/l, which is the recommended cut-off point considered by the New Zealand Heart Foundation as the lower border of ‘high’ risk. The differences between males and females in FG, HbA1c and TC values were not significant (P >0.05). The total cholesterol levels in the low education group were higher than that in the high education group, and the difference between these two groups was significant (P <0.05).

Conclusions – Highly acculturated participants gradually adopt some of Western food patterns and sedentary lifestyles, when compared to the participants in the low acculturation groups. With the increased acculturation levels of the participants, they adopt more Western eating patterns and lifestyles, which are potential increased risks for type 2 diabetes when taken together with their Chinese genetic backgrounds.