Diet and lifestyle predict mortality and morbidity in Australian Aborigines

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Background – Lifestyle diseases substantially influence increased mortality in Aboriginal Australians relative to the non-indigenous population. Poor nutrition, sedentary behaviour, alcohol-drinking, and smoking have been implicated, using cross-sectional data. We have examined unique longitudinal data which include aspects of diet and lifestyle and cardiovascular risk factors in a cohort of WA Aborigines with follow-up of mortality and hospital data.

Objectives – To examine predictors of CHD and all-cause mortality in Aboriginal Australians.

Design In 1988-89, randomly selected Australian Aborigines (256 men, 258 women), aged 15-88 years, completed interviewer-administered questionnaires about diet, exercise, smoking and alcohol drinking; blood pressure, weight, height and blood lipids were measured. The WA Data Linkage Unit linked participants to hospital and death records to 31 December 2002. Cox regression was used to examine predictors of CHD and all-cause mortality.

Outcomes - CHD risk increased with smoking (Hazard Ratio (HR) 2.62, 95% CI:1.19, 5.75), eating processed meats >once/week (HR 2.21, 95% CI:1.05, 4.63), eggs >twice/week (HR 2.59, 95%CI:1.11, 6.04) and using spreads on bread (HR 3.14, 95% CI:1.03, 9.61). All-cause mortality risk decreased with exercise >once/week (HR 0.51, 95% CI: 0.26, 1.05), increased in ex-drinkers (HR 3.66, 95% CI:1.08, 12.47), heavy drinkers (HR 5.26, 95% CI:1.46, 7.52), and with eating takeaway foods >9 times/month (HR 1.78, 95% CI 0.96, 3.29). Adverse behaviours clustered in 55% of participants and increased risk of CHD (HR 2.1, 95% CI:1.1, 4.0) and all-cause mortality (HR 2.3, 95% CI:1.2, 4.2) (see Figure).

Conclusion – Aspects of diet and lifestyle in Aboriginal Australians predict CHD and all-cause mortality. Clustering of adverse behaviours is common and increases risk of CHD and death.