

An update of the general health status in the indigenous populations of Malaysia

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Objective. Health scenarios are constantly evolving, particularly in developing countries but little is known regarding the health status of indigenous groups in Malaysia. This study aims to elucidate the current health status in four indigenous populations in the country, who by and large been left out of mainstream healthcare developments.

Methods. Participants were recruited from the Temuan, Jehai, Kensiu and Bidayuh indigenous groups throughout Peninsula Malaysia and Sarawak. Health parameters including body mass index (BMI), blood pressure, casual blood glucose and, total cholesterol levels were measured using established methods. Malondialdehyde (MDA) and ferric-reducing antioxidant power (FRAP) levels were measured to assess oxidative stress status. Blood films were screened for evidence of microbial or parasitic infections and leukocyte differential counting was performed.

Results. The Temuan and Bidayuh who are more urbanized, had significantly higher mean body weight, BMI, total cholesterol ($p < 0.05$) and higher prevalence of obesity and hypercholesterolemia. Low cholesterol levels, elevated eosinophil counts and increased total IgE, indicative of immune responses to infection or allergy, were recorded in the rural Kensiu and Jehai. The Kensiu had higher levels of FRAP and lower levels of MDA, whereas the reverse was found in the Temuan. This suggests reduced oxidative stress in the Kensiu compared to the Temuan. Expected correlations between FRAP and MDA levels with age, were evident in Jehai.

Conclusions. Our findings reflect a shifting health burden and an epidemiological transition, particularly in the Temuan and Bidayuh. These changes could be attributed to dietary habits, lifestyles and socio-economic factors brought about by urbanization.

Keywords: indigenous communities; health; oxidative stress

Introduction

Malaysia is a multi-ethnic country, with the Malay, Chinese and Indian ethnic groups forming over 80% of the population. Indigenous ethnic groups which include the Orang Asli in Peninsula Malaysia and the various indigenous tribes in the states of Sarawak and

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