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Filipino Women's Health Study

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ABSTRACT

Background: Western acculturation has been shown to be detrimental to health outcomes. Recently, more Filipinos are migrating to New Zealand, which may increase lifestyle-related chronic diseases. Furthermore, Filipino populations already have a higher incidence of chronic disease and less favourable health outcomes than their Western counterparts. Understanding their risk will assist development of public health initiatives which can be utilised to protect the health of the growing Filipino New Zealand migrant population. **Aim:** The aim of this study was to investigate the risk of developing type 2 diabetes mellitus and cardiovascular disease among recently immigrated Filipino women **Method:** 62 recently-immigrated Filipino women, aged 19-45, were recruited from Auckland, New Zealand. A health and demographic information questionnaire was completed. Anthropometric measurements (height, weight, and waist circumference) and blood pressure were measured. Both total and percent body fat were determined using dual energy X-ray absorptiometry. Fasting glucose, insulin, and lipids were measured. Physical activity data was monitored by accelerometers and two-day food diaries were completed. Homeostasis Model Assessment 2 was used to quantify insulin resistance. The 30-year Framingham Risk Score was used to classify participants into low-, medium-, or high-risk of developing cardiovascular disease. Prevalence of metabolic syndrome according to the modified National Cholesterol Education Programme criteria was determined. **Results:** Body mass index, waist circumference, and percent body fat were positively correlated with higher insulin resistance. Smokers had higher insulin resistance than non-smokers. However, 90% of participants had a low long-term risk of developing cardiovascular disease and 10% of participants met the metabolic syndrome criteria. This study was cross-sectional and provided used self-selection sampling. **Conclusion:** Anthropometric measures and smoking were associated with higher insulin resistance in participants. Participants with metabolic syndrome (10%) were at a greater risk of developing type 2 diabetes mellitus. This study highlights the risk of diabetes and cardiovascular disease development, and the need for further research, in this Filipino migrant population. These findings also create a platform for improving New Zealand health programmes by targeting appropriate risk factors to improve insulin sensitivity and reduce risk of developing diabetes, and will help to raise awareness in the Filipino community.

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ABBREVIATIONS

AHA	American Heart Association
AMDR	Acceptable Macronutrient Distribution Range
BMI	Body Mass Index
CHIS	California Health Interview Survey
CVD	Coronary Heart Disease
cm	Centimetre
CVD	Cardiovascular Disease
DXA	Dual-Energy X-Ray Absorptiometry
FNRI	Food and Nutrition Research Institute
IDF	International Diabetes Foundation
kg	Kilogram
m	Metre
MetS	Metabolic Syndrome
MOH	Ministry of Health
NCEP ATP III	National Cholesterol Education Programme Adult Treatment Panel III
NHIS	National Health Interview Survey
NHLBI	National Heart, Lung and Blood Institute
NRV	Nutrient Reference Value
T2DM	Type 2 Diabetes Mellitus
VAT	Visceral Adipose Tissue
WC	Waist Circumference
WHO	World Health Organisation
WHR	Waist-to-Hip Ratio