

UNIVERSITI TEKNOLOGI MARA

**CORONARY RISK FACTOR
PROFILE, RISK SCORE AND
SURVIVAL ANALYSIS OVER A 17
YEAR PERIOD IN A RURAL
COMMUNITY**

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Thesis submitted in fulfilment
of the requirement for the degree of
Master of Science

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulation of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulation for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Cardiovascular disease continues to contribute to the major cause of death and disability worldwide in both developed and developing countries. Reliable data on the changes of cardiovascular disease (CVD) risk factor and mortality over a substantial period of time in a rural Malaysian community is limited. The objective of this study was to assess the progression of cardiovascular disease risk factor over a period of 17 years in a rural community. A follow-up study of the 1993 RAUB HEART STUDY was done in 2010. Demographic data and cardiovascular risk factors were measured and verbal autopsy questionnaires were given to the family members of the 45 deceased subjects. The changes of risk factor and survival analysis of the deceased were analysed. Significant increase in the mean systolic and diastolic blood pressure (SBP and DBP), body mass index (BMI), total cholesterol (TC), high density lipoprotein cholesterol (HDL-c), low density lipoprotein (LDL-c) were observed over the 17 year period. The prevalence of hypertension, diabetes mellitus, hypercholesterolemia and obesity also increased from 21.2%, 6.0%, 22.2% and 16.5% to 60.0%, 19.9%, 51.5% and 24.0% respectively. Significant reduction in smoking was seen among women but not men. The survival analysis showed significant difference for hypertension, smoking and FRS in all cause mortality. The cardiovascular risk factors worsen over the 17 year period. This increases the risk of having CVD disease among the follow-up subjects. Hypertension and smoking were a significant risk factor for all-cause mortality. Further understanding of the CVD risk factor in this longitudinal study is essential in determining the effect of a substantial period of time have towards an individual's cardiovascular disease risk.

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