Abstract

STUDY OBJECTIVES: To evaluate the performance of the Framingham, national health epidemiologic follow up study, and the WHO ERICA risk scores in predicting death from coronary heart disease (CHD) in an Australian population.

DESIGN: Cohort follow up study.

SETTING AND PARTICIPANTS: The cohort consisted of 1923 men and 1968 women who participated in health surveys in the town of Busselton in Western Australia over the period 1966-81. Baseline assessment included cardiovascular risk factor measurement. Mortality follow up to 31 December 1994 was used.

MAIN RESULTS: Risk scores for death from CHD within 10 years based on age, systolic blood pressure, cholesterol, smoking, and BMI were derived from the Busselton study data using logistic regression analysis. Similar risk scores developed from the Framingham, the national health epidemiologic follow up study, and the WHO ERICA cohorts were found to perform just as well in Busselton as the Busselton-derived scores, both before and after controlling the effect of age. There was considerable overlap across the different risk scores in the identification of individuals in the highest quintile of risk. Those in the top 20% of scores included about 41% of deaths from CHD among men and about 63% of deaths from CHD among women.

CONCLUSION: Although there is variation in risk score coefficients across the studies, the relative risk predictive performance of the scores is similar. The use of Framingham and other similar risk scores will not be misleading in white Australian populations.