

PH032398: MAJOR HEALTH SYSTEMS DEVELOPMENT

KEYWORDS: DIABETES / SCREENING / CASE DETECTION / RISK FACTORS / BURDEN OF DISEASE

JIRACHART RUANGWATCHARIN: PREVALENCE OF DIABETES MELLITUS AND RELATED FACTORS AMONG PEOPLE AGED 40 YEARS AND OVER IN KIRIRATNIKOM DISTRICT, SURAT THANI PROVINCE, THAILAND. THESIS ADVISOR: ROBERT SEDGWICK CHAPMAN, 64 pp.

This cross-sectional study ascertained the prevalence of diabetes, as measured by fasting blood sugar level, and assessed associations of diabetes risk with a variety of potential risk factors, in 483 subjects aged ≥ 40 years, in Kiriratnikom District, Surat Thani Province, Thailand. Another important purpose of this study was to ascertain the burden of undetected diabetes, and to ascertain the prevalence of pre-diabetes.

Subjects were selected by stratified random sampling which ensured proportional representation for each of the 8 sub-districts in the study district. Fasting blood sugar was measured; levels of ≥ 126 mg/dl and 100-125 mg/dl were considered diagnostic of diabetes and pre-diabetes, respectively. Each subject had a physical examination. A standardized questionnaire elicited subjects' sociodemographic information and personal and family medical histories.

Prevalences of diabetes and pre-diabetes were, respectively, 5.2% (6.3% in men and 4.2% in women) and 9.5% (9.5% in men and 9.6% in women). More than half of those with diabetes had not been previously diagnosed (prevalences of diagnosed and undiagnosed diabetes were 2.5% and 2.7%, respectively). Hypertension was significantly associated with diabetes (adjusted odds ratio (OR) =14.49, 95% confidence interval (CI): 4.59-45.76), as was waist circumference (OR=1.19, 95% CI: 1.11-1.28). Alcohol consumption was significantly associated with diabetes (OR=3.23, 95% CI: 1.12-9.33).

The diabetic screening program should be conducted because of the large number of undetected diabetes in the district. Health promotion for reducing blood pressure and overweight is useful for prevention of diabetes

Field of Study Health Systems Development Student's signature _____

Academic year 2007 Advisor's signature _____