

**PREVALENCE OF DIABETES MELLITUS AND RELATED
FACTORS AMONG PEOPLE AGED 40 YEARS AND
OVER IN KIRIRATNIKOM DISTRICT,
SURAT THANI PROVINCE, THAILAND**



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A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Public Health Program in Health Systems Development

College of Public Health Sciences

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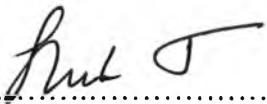
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By Jirachart Ruangwatcharin

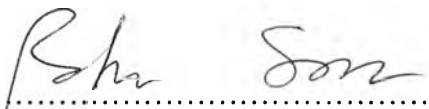
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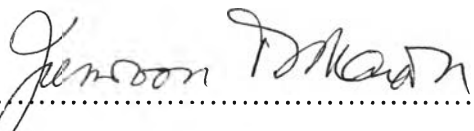
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This cross-sectional study ascertained the prevalence of diabetes, as measured by fasting blood sugar level, and assessed associations of diabetes risk with a variety of potential risk factors, in 483 subjects aged ≥ 40 years, in Kiriratnikom District, 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 _____

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The image shows two handwritten signatures. The top signature is a stylized, cursive signature in black ink. The bottom signature is a more legible signature, appearing to read 'Robert S. Chapman', also in black ink.

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I hope that all of this information will be of direct or indirect benefit for mainly public health and people not only to me, but also to all of the persons that I have already mentioned and others that helped me but can not be mentioned here.

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LIST OF ABBREVIATIONS

BMI	: BODY MASS INDEX
CI	: CONFEDENCE INTERVAL
DM	: DIABETES MELLITUS
FPG	: FASTING PLASMA GLUCOSE
GDM	: GESTATIONAL DIABETES MELLITUS
GI	: GLYCEMIC INDEX
GL	: GLYCEMIC LOAD
HDL	: HIGH-DENSITY LIPOPROTEIN
HT	: HYPERTENSION
IDDM	: INSULIN DEPENDENT DIABETES MELLITUS
IFG	: IMPAIRED FASTING GLUCOSE
IGT	: IMPAIRED GLUCOSE TOLERANCE TEST
IPAQ	: INTERNATIONAL PHYSICAL ACTIVITY QUESTIONNAIRE
NIDDM	: NON-INSULIN DEPOENDENT DIABETES MELLITUS
OR	: ODDS RATIO
SE	: STANDARD ERROR
WHO	: WORLD HEALTH ORGANIZATION