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

Chulalongkorn University

Academic Year 2007

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502052

Thesis Title	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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PH032398: MAJOR HEALTH SYSTEMS DEVELOPLMENT
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 (adjust 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 Robert S. Chapman

AKNOWLEDGEMENTS

I enthusiastic give special thanks to my advisor Dr. Robert Sedgewick Chapman who was very kind and be patient in leading, supervision, suggest and comment the various chapters of the paper which influenced the final thesis.

My special thanks to all of the staffs at the collage of public health, Chulalongkorn University for their spirit, sincerity, kindness and encouragement.

I acknowledge all of the diabetic screening team from Kiriratnikom Hospital, Surat Thani province and all subjects for their generous cooperation.

My sincere appreciation and grateful are also express to all of my lectures who have taught and shared the knowledge, learning and their experiences.

Furthermore, I would like to extended my special thanks to all of my classmates for their cooperation and supporting my study until completion.

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.

Lastly, I would like to express my deepest love to my mother and father who always supported everything of my life including this Master course.

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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