

# CHAPTER I

## INTRODUCTION

Diabetes is one of the most serious public health concerns. There is no doubt left about its seriousness given the fact that it is the seventh leading cause of death in the USA, the country of which there are about 2,000 new cases of type 2 diabetes diagnosed every day. This has led to a threefold increase of the prevalence during the past 40 years (American Diabetes Association: ADA, 2001). Furthermore, the diabetes is also the major public health problem of many other countries worldwide.

Type 2 diabetes is one of major public health problems of Thailand and the number of patients suffering from this type of diabetes has increased continuously. In 2001, the number of DM patients was totaled as 1,380,000 persons. World Health Organization has recommended that people take preventive measures for non insulin dependent diabetes. An example of such primary prevention is to change lifestyle in regard to foods and physical activities in order to control body weight (WHO: 2001, cited in Wisit Chawipotchakanajorn, et al.). However, it was found that only 37.4% of diabetes patients realized that they had diabetes and received treatments. This percentage was relatively low when it is compared to the high prevalence of diabetes. In addition, the complications of diabetes were among main causes of death for Thai population. According to 1995 report, ten persons died every day due to diabetes complications (Department of Medical Services, Ministry of Public Health, 2001)

Diabetes has caused economic impacts quite tremendously each year, both directly and indirectly. The exact values of economic impacts of diabetes in term of death, complications and the costs related to undiagnosed diabetes are unknown. Apart from this, the loss of people's lives and abilities in views of families and communities is much far beyond the numerical measures.

People have undiagnosed diabetes are all at increased risk for serious health complications, including blindness, kidney failure, amputation and cardiovascular diseases. However, all the burdens caused by this major public health problem can be prevented by early detection, improved delivery of care and better education on diabetes.

The Type 2 Diabetes Prevention Program (T2DPP) is a community based primary prevention project designed to reduce the risk factors for developing diabetes among people at risk. Program design and implementation were the joint effort between Panatnikhom Hospital and Railugthong Health Center. The hospital provided training for personnel to use the blood test instruments to identify new diabetic cases and provide initial treatments. The health center screened people who were at risk and referred patients for further diagnoses, as well as to find the people who would like to participate in Diabetes Prevention Project. Phanat Nikhom Hospital provided guest speakers who came and gave didactic presentation to participants on diabetes, food and exercise. The health center proceeded further as the extension from that presentation in cooking / foods preparing activities, as well as doing exercises. The health promotion basing on Pender's theory was used in this study in order to learn about changes of

diabetes preventing behaviors. A healthy diet and exercise are the mainstays of controlling, which are most modifiable to prevent all risk factors for diabetes (American Diabetes Association: ADA, 2001)

Chapter 2 of this thesis is the review of the literature of diabetes in regard to risk factors and preventive strategy, the use of health promotion model (HPM) to increase knowledge of diabetes, increase perception and encourage high risk group to have more exercises and diet control.

Chapter 3 is the evaluation of this program, which was divided into 4 sections; (1) Introduction, (2) Purpose, (3) Method design, and (4) Results

Chapter 4 is about the discussion and conclusion providing the fact that this program can be used to prevent diabetes, which reflects that its objective has been met.

Finally, Chapter 5 is the recommendation for further practical application. Recommendations were made specifically to each portion of the project for further development and improvement