

## **CHAPTER I**

## INTRODUCTION

#### **Background and rationale**

Nowadays, health problems of Thai people have changed from communicable diseases to non-communicable diseases which are caused by environments, food, alcohol and cigarette consumption behaviors and lack of exercises as well as stress from daily routines. All of these have contributed to a continuing increase of non-communicable disease prevalence and mortality rates. According to the statistics of Ministry of Public Health, heart disease is the most common cause of death among Thai people; rising from 37.4 in100,000 people in 1986 to 79.5 in 1996 (Department of Medical Service, Ministry of Public Health, 1998). Later, in 2001 and 2002, heart disease is ranked the third and the fourth with the prevalence rate of 56.2 and 52.6 in 100,000 people respectively with hypertension and diabetes mellitus as significant risk factors (Ministry of Public Health, 2004). In addition, referring to a study of Chuprapawan (2000), Thai patients with hypertension and those with diabetes mellitus were 3.7 and 4.2 times respectively at greater risk of having cardiovascular disease.

According to the health examination survey of Thai people in 1996-1997, results demonstrated that 6,447,301 people were prone to have hypertension (over 15 years of age) and 4,587,442 people or two-thirds were in the working age group (15-59 years). Moreover, more than half of these people were not aware of their condition

because they had no symptoms and it was more common in men than women. The survey also reveals that approximately 2,000,000 people were likely to have diabetes mellitus and mostly occurred to women more than men (Ministry of Public Health, 2004). Policies of Public Health Ministry to control and prevent cardiovascular disease and diabetes mellitus are to educate people to have knowledge and understanding of the disease prevention and raise awareness on diabetes mellitus and hypertension among people in communities, so that they will learn about their health condition. In addition, the policies aim to encourage people over 40 years of age to have screening for hypertension and diabetes mellitus at least once per year. This is in accordance with indicators and criteria in 2005 which point out that if more than 60% of people aged over 40 having diabetes mellitus and hypertension screening for at least once per year, it could reduce medical expenses, decrease the number of incidents regarding physical and mental losses, shorten the amount of time in sickness and maintain people's good quality of life.

Krabi is one of provinces in Thailand which immediately respond to the Public Health Ministry's policies to prevent and control non-communicable diseases by having instructed all governmental health care providers to conduct screening for hypertension and diabetes mellitus in people aged 40 and older since 1998. Results of the screening, however, showed that even though the screening was provided for free of charge, the number of people having screening for hypertension and diabetes mellitus was far below the expected goal; at a meager of 44%, 48% and 51% in 2002, 2003 and 2004 respectively (Division of Disease Control, Krabi Provincial Health Office, 2005). An analysis of the Krabi Provincial Health Office suggests that main causes of this underachievement are; 1) people and key community leaders still lacked

of knowledge and understanding about hypertension and diabetes mellitus and process of the screening; 2) most people did not perceive benefits and importance of the screening; 3) lack of participation of communities and 4) discontinuity of the implementation. This is consistent with a study conducted by Sitthipongkul and Charoenyud (1996) which explores community health nursing of health promotion division of community hospitals in Thailand. The study indicates that despite of participation of health volunteers who represented local people in communities, the screening was still considered a top-down instruction which required immediate action. As a result, the screening was implemented as a request for cooperation rather than an activity which truly promoted people's participation.

Ban Kor Tong Health Center in Kao Din sub-district, Kao Panom district, Krabi province has responded to the Public Health Ministry's policies to control and prevent diseases, reduce the number of patients, search for new cases and decrease the mortality rate caused by cardiovascular disease and diabetes mellitus. Its strategies are to educate people with diabetes mellitus and hypertension to have knowledge and understanding about prevention of the diseases, to raise awareness of local people in communities who have diabetes mellitus and hypertension, making make them aware of their high blood pressure and level of glucose and encourage them to have screening for hypertension and diabetes mellitus at least once per year. Outcomes of hypertension and diabetes mellitus screening implementation for people over 40 years of age show that the number of the target population taking the screening fell short of the expected goal. The outcomes also illustrate that the number of people aged over 40 undertaking the screening for both diseases at least once per year was 30% in

2002, 33% in 2003 and 45% in 2004 and preliminary surveys indicated lack of community participation as the main cause of the underachievement.

It is agreed that people's participation is the most important basis in solving problems in any aspects. Especially in public health, people's participation is the main component in developing public health practices. Concepts in developing public health systems which are included in the Ninth National Economic and Social Development Plan (2002-2007) have promoted decentralization for people and local authorities and encouraged them to participate in decision making process, making directions and managing their own health. People's participation is the process which the public sector has promoted, supported and created opportunities for people in communities as an individual, group, club, charitable group or a volunteer organization in any form to participate in the implementation of any issue or any combined issues to achieve purposes and policies of development as identified (Taecharin, 1984). Involving people in communities to participate in planning and decision making process can create a common understanding in implementing projects in the communities, establish their acceptance and responsibilities as the society's member as well as create a sense of ownership, making them proud of the project which they have been involved. All of these enable activities in villages to move forward smoothly, continuously and effectively and ultimately contribute to success (Somchokchai, 1994).

One of critical factors for successful people's participation in local projects in communities is to involve key community leaders in the process because usually people in Thai society respect, trust and have faith in their leader and when the leader asks them for cooperation, they normally are cooperative (Teeralarb, 1985;

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Taechaathit, 1997). So, to promote more people's participation in public health practices, local people or key community leaders should be encouraged to have greater levels of participation in decision making and planning for interventions of their preferences. Based on the literature review and personal training experiences, the researcher has learned that empowerment is one of effective approaches which are appropriate to Thai society.

Empowerment is the public health development process which encourages individuals to actively participate from problem identifications, analysis of the problem and relevant factors as well as determination of directions and action taken to solve the problem. Empowerment is one of approaches to strengthen communities and the empowerment process can happen with support from public health officers, so that people are capable of managing and implementing activities. Empowerment is the development process for individuals, groups and communities and it applies concepts and philosophy of empowerment education which can empower individuals and communities for health development. It can be used especially with key community leaders who will lead development activities; such as, village committee members, public health volunteers, and members of Tambon Administrative Organizations or woman occupational groups. The process will enable the leaders improve their capabilities, strengths and networks in developing their communities and learning of various factors relevant to health problems. In addition, it will help them to find out problem solution, believe in their personal and group capacity in tackling problems and promote health development of their own self, family members and their communities (Pensirinipha, 2001).

Positive outcomes from the past development show that a great number of local communities are currently very weak and one of important factors is the community disempowerment because staff officers are labeled in the traditional development concept as an expert who knows problems and instructs local people in the community while these people are perceived as an ignorant wrongdoer or those who do not follow the officer's instruction. The concept makes people in the community lack of improvement in their thinking and problem solving skills, causing the community constantly in need of assistance and guidance from the officers. The traditional development concept, thus, is the continual disempowerment for the community, so if we would like to empower the community to become stronger, a new paradigm needs to be introduced and more emphasis should be placed on a new concept that people in the community know, live with problems and are affected by the problems. Consequently, to solve the problems at their root causes and making it more sustainable, it needs to be done by people in the community and for the community, instead of by officers just like in the past (Pensirinipha, 2001).

The researcher, therefore, is interested in exploring the effectiveness of empowerment for key community leaders in Kao Din sub-district, Kao Panom district, Krabi province to prevent and control hypertension and diabetes mellitus. This study aims to investigate the empowerment among key community leaders if it will result in changes in their knowledge, self-efficacy expectations and behaviors in providing knowledge and influencing others so that other people have knowledge and understanding and more people will have screening for hypertension and diabetes mellitus. I aimed to use this study to contribute to the prevention and control of these diseases and reduce the number of people with hypertension and diabetes mellitus.

# Objectives of the research

## General objective

To investigate the effectiveness of empowerment for key community leaders to provide knowledge and influence at least 60% of people aged 40 and older residing in Kao Din sub-district, Kao Panom district, Krabi province to have hypertension and diabetes mellitus screening.

## **Specific objectives**

- 1. To study the following changes among key community leaders which are caused by the empowerment training;
  - 1.1 Knowledge of hypertension and diabetes mellitus
  - 1.2 Self-efficacy expectations
- 1.3 Behaviors in providing knowledge and influencing other people to have screening for hypertension and diabetes mellitus.
- 2. To explore the following changes among people aged over 40 as a result of interventions by key community leaders;
  - 2.1 Knowledge of hypertension and diabetes mellitus
  - 2.2 Screening behaviors for hypertension and diabetes mellitus.

## **Hypothesis**

- 1. Empowerment training program will cause more positive changes among key community leaders, compared to before training in the following aspects;
  - 1.1 Knowledge of hypertension and diabetes mellitus
  - 1.2 Self-efficacy expectations
- 1.3 Behaviors in providing knowledge and influencing other people to have screening for hypertension and diabetes mellitus

- 2. There will be more positive changes among people aged over 40 as a result of interventions by key community leaders, compared to before experimental in the following aspects;
  - 2.1 Knowledge of hypertension and diabetes mellitus
  - 2.2 Screening behaviors for hypertension and diabetes mellitus

#### Research variables

- 1. Independent variable are listed below;
- 1.1 General characteristics of community leaders; Age, sex, education, occupation, income, role and responsibilities and time duration on community services.
- 1.2 General characteristics of people age 40 years and older; Age and sex
  - 2. Dependent variables are listed below;
- 2.1 Knowledge of key community leaders about hypertension and diabetes mellitus
  - 2.2 Self-efficacy expectations of key community leaders
- 2.3 Behaviors of key community leaders in providing knowledge and influencing other people to have screening for hypertension and diabetes mellitus
- 2.4 Knowledge of people aged 40 and older about hypertension and diabetes mellitus
- 2.5 Screening behaviors of people aged over 40 for hypertension and diabetes mellitus

## Scope of the research

- 1. This study focuses at key community leaders. Most of them formal key community leaders are one village headman, 4 assistants to the village headman, 2 members of Tambon Administrative Organization, 21 health volunteers, 2 key leaders of woman occupational groups and people aged 40 and older residing in Kao Din subdistrict, Kao Panom district, Krabi province.
- 2. This research explores the effectiveness of empowerment for key community leaders who will provide knowledge and influence other people to have screening for hypertension and diabetes mellitus. This project takes up 6 months from December 2004 June 2005.

### **Assumptions**

- 1. People who have screening for hypertension and diabetes mellitus are those who have both blood pressure and glucose in the blood screened within the research timeframe.
- 2. Acquired knowledge and understanding and screening for hypertension and diabetes mellitus undertaken within the research timeframe will be considered as a result of the research experimental.

### Definitions of key words used in this study

**Hypertension** is the force of the blood against vessel walls caused by pumping action of the heart and it can be measured by the upper arm blood pressure meter. The systolic pressure (top number) is the pressure created when the heart beats

at over 140 mmHg and the diastolic pressure (bottom number) is the pressure when the heart is at rest at over 90 mmHg.

**Diabetes mellitus** is a metabolic disorder of high blood sugar at over 120 mg. per 100 mm. of blood.

Prevention and control of hypertension and diabetes mellitus refers to the situation when people have knowledge and understanding of hypertension and diabetes mellitus and undertake screening for both diseases.

Empowerment for key community leaders refers to a training program for key community persons which applies the empowerment concept to make changes in the key community leaders in aspects of their knowledge about hypertension and diabetes mellitus, self-efficacy expectations, participation in prevention and control of hypertension and diabetes mellitus. The training program encourages them to learn about and respect their own self. They will also learn about others and understand them. Additionally, they will be trained to develop skills in working with others, analyzing problems and taking steps in solving the problems. Moreover, they will learn about hypertension and diabetes mellitus which will empower them to provide knowledge and influence other people to have screening for hypertension and diabetes mellitus which is the ultimate desired goal of this study.

**Key community leaders** are individuals who are selected as leaders for any specific tasks in the community. Most of them formal key community leaders are one village headman, 4 assistants to the village headman, 2 members of Tambon Administrative Organization, 21 health volunteers, 2 key leaders of woman occupational groups.

**Self-efficacy expectation** is the key community leader's belief that he/she is capable of providing knowledge and influencing other people to have screening for hypertension and diabetes mellitus.

Knowledge of hypertension and diabetes mellitus is the capability to memorize and understand facts about causes, symptoms, complications and hypertension and diabetes mellitus preventive measures.

Hypertension and diabetes mellitus screening refers to an interview, physical examination and measurements of blood pressure and the level of blood sugar for people aged over 40 in order to learn about their health condition. The hypertension and diabetes mellitus screening is always available in office hours at the health center/ community hospital.

## **Expected benefits**

- 1. Empowering key community leaders in prevention and control of hypertension and diabetes mellitus can be a model to be apply to Kao Din communities.
- 2. This intervention allows which has similar people in the community to become involved in hypertension and diabetes mellitus prevention and control. It supports local organizations to think, analyze and take courses of action in what they think would benefit them and their community.
- 3. The result of this study can be useful data for executives when formulating policies for future implementations.

- 4. The result of this study can be used as guidance in empowering the community, strengthening the community's unity and gradually instilling teamwork practices and sustainable development concept.
- 5. This study can motivate key community people to play more active roles in implementing projects in their villages.