Chapter 1

Background

1.1 Background

Dental decay is the leading oral disease in Thai preschool children. The oral health goal for caries-free primary teeth set by the World Health Organization and Thailand in the year 2000, were 50% and 30%, respectively (Dental Health Division, 2002). The percentage of caries free primary teeth in 5 to 6 year-old children in northern and other parts of Thailand in 2002 was between 14.2% and 12% (Dental Health Division, 2002). So it is apparent that in Thailand oral health is a significant health problem in preschool children. Oral disease in preschool children provokes pain that interferes with eating (Billings, 1996; Gherunpong *et al.*, 2004), and affects children's quality of life (Gherunpong *et al.*, 2004) and growth and development (Ismail, 1998).

Diet is one of the most important factors causing dental decay (Rugg-Gunn, 1996) especially in the primary dentition (Nobre dos Santos *et al.*, 2002). Cariogenic diets, and the timing and frequency of exposure to such diets are considered to be critical factors affecting the caries process (Milgrom & Weinstein, 1999).

There are some important factors which influence the dietary habits of children. First, mothers play a big part in influencing the child's diet. Mothers provide the food that their children eat and dietary habits tend to be passed from the parent to child (Rugg-Gunn & Nunn, 1999). Second, school is an important social and physical environment for children, because they live and learn there during most of the day, thus, changes in either the social or physical environment in school can have an important impact on student health. Moreover, young children in particular, are influenced by modelling. Familiarity, social-modeling and frequency of eating habits are powerful influences on food preferences during childhood (Kennedy, 2000). The third factor that influences eating habits is the social environment in which people live and work (Sheiham & Watt, 2000). It is therefore important to consider appropriate programmes particularily, healthy eating practices during childhood, as they become life-long habits which children carry with them into adulthood. Prior to implementation of any intervention programme, all important factors involved should be very carefully considered.

Health promotion, based on the Ottawa Charter, is a useful strategy to promote good oral health because it emphasises enabling people to increase control over and improve their health (World Health Organization, 1986). Many strategies are used to promote health such as building healthy public policy, creating supportive environments, strengthening community actions, developing personal skills and reorienting health services (World Health Organization, 1986). Some researchers suggested that the control of oral disease can mainly be achieved in terms of social policy. In health promotion, public health policy has a major influence on people's

health and quality of life (Jones *et al.*, 2002). Understanding how policy is developed will help in planning health promotion. However, oral health problems share the same risk factors with a number of important chronic diseases and conditions such as obesity, cardiovascular disease, cancers and injuries. Promotion programmes should involve all targets when they have similar origins (Sheiham & Watt, 2000).

Diet is one factor which is related to the cause of diseases such as dental caries, obesity and cardiovascular disease. Thus, a healthy eating programme is important to promote health, not only for decreasing dental caries but also to prevent other problems associated with improper eating habits. Moreover, specific-disease strategy has proven not to be very effective. Oral health practitioners should be concerned primarily with a broad-disease strategy.

In Thailand, the government has a policy for promotion of school health since 1998. There were various strategies to incorporate health promotion into the schools under the umbrella of 'building a healthy public policy' and is one of those strategies being used in Thailand. The process of building public policy to promote oral health in preschool children is a worthwhile challenge. Public policy can affect the social and physical environment in the schools and play an important part in influencing the children. However, the old policies are still essential. Therefore, prior to building new policies, the researcher should assess the existing policies and then change some of the weaker aspects of these policies.

In summary, dental caries is a major public health problem in Thailand. Although, the Department of Health has launched several programmes to reduce dental caries, the prevalence of dental caries is still unacceptably very high in Thai children suggesting that the programmes were not successful in reducing caries because the programmes targeted diseases separately, not accepting that dental caries is a chronic disease that has causes in common with other important chronic diseases. Health promotion policy is the appropriate strategy to tackle the problem of caries because the determinants are social and economic and a multidisciplinary approach needs to be used in the health promotion programmes. Therefore, the challenge is to develop a model of a health-promoting school programme that affects the oral as well as the general health of preschool children. To promote the health of preschool children, promotion programmes should involve all the influencing social factors such as parents, teachers, school board members and certainly the children. However, most preschool children are supervised by parents/carers and teachers. If the programme was inititated with these persons, it would eventually influence their children. Therefore, it is very important to consider the active participation of these important key players in the school setting.

Building a healthy eating policy and promoting oral health in preschool children is a challenge for oral health practitioners. There is the need for further investigation of preschool children's oral health, especially the effects of food policies at the local level. At present, very little research has been conducted on developing a healthy eating policy for preschool children. Action research could answer questions regarding the implementation of healthy eating policies and this could ultimately lead

to an improvement in the oral health status of the children. Therefore this study focuses on 1) the development of healthy eating policies for preschool children, and 2) the effects of a healthy eating policy on diet in preschool children and on school policies.

1.2 Aim of research

The aim of this research was to investigate the effects of a healthy eating policy for preschool children on changes in diet and school policy in Phrae Province, Thailand and to develop a model to implement a healthy eating policy in the schools.

1.2.1 Hypotheses

1. The intervention schools or the schools where healthy eating policies were developed had better practices in school policies than the control schools.
2. Preschool children in the intervention schools, where healthy eating policies were developed, had better diets than those in the control schools.

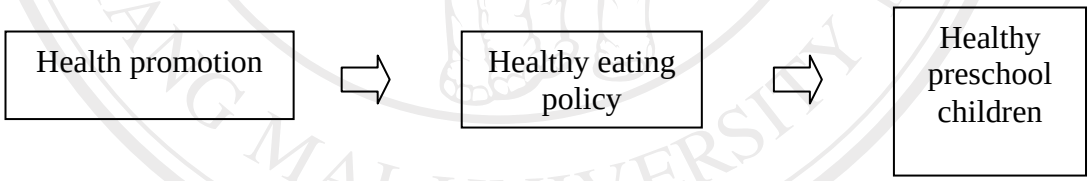
1.2.2 Objectives

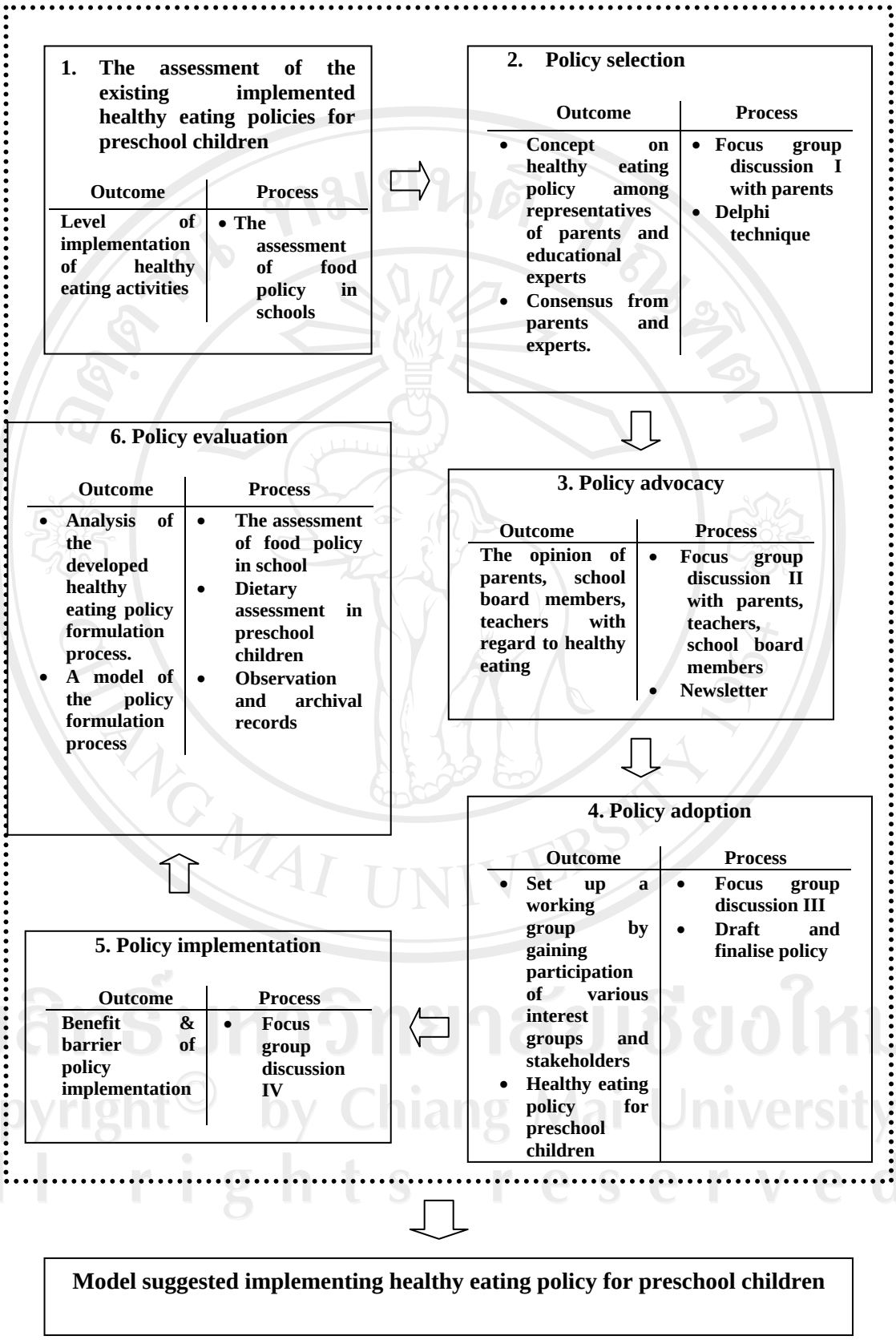
The study was designed:

1. To assess the existing implemented healthy eating policy for preschool children in public schools in Phrae province, Thailand.

2. To develop a healthy eating policy for preschool children in public schools in Phrae province, Thailand.
3. To investigate how different dimensions of policy implementation influence the implemented healthy eating policy for preschool children.
4. To investigate the barriers and facilitating factors to implement the developed healthy eating policy.
5. To assess the effects of the developed healthy eating policy on changes in diet in schools.
6. To develop a model to implement healthy eating policy in school.

1.3 Conceptual framework





Model suggested implementing healthy eating policy for preschool children

1.4 Definitions

Schools were public primary schools supervised by the Ministry of Education. Two preschool classes (Anubaan 1 and Anubaan 2) were located in these schools.

Preschool children were children aged 4-5 years old attending the public primary schools.

Control schools were controlled schools where none of the policy by researcher was implemented.

Intervention schools were schools where the policy was implemented through the process designed in this study.

A healthy eating policy : described as a school policy for preschool children which would develop strategies to promote healthy eating in school especially sugary aspect include curricula of preschool level, and the coordination between school staff, family and community.

A selected school was a school selected from a random sampling of the 'fair' group as described below. It would be an implemented or a control school.

An educational supervisor was an officer of the Ministry of Education, who was responsible for supervising teachers regarding education.

Dimensions of policy implementation which influence the implemented healthy eating policy described base on modified 4 dimensions for understanding policymaking in education (Cooper *et al.*, 2004).

Normative dimension described as value or beliefs which drive all stakeholders in this study to seek health behaviour improvement and change of preschool children.

Structural dimension described as a role and effects of the working group structure to implement the policy including process that announce and support healthy eating policy.

Constituentive dimension described as all stakeholders who influence, participate in, and benefit from the policy making process.

Technical dimension described as how steps and stages of policy implementation and all activities launched in the intervention schools during the healthy eating policy implementation, influence the implemented healthy eating policy.

1.5 Location

Amphur Muang, Phrae province, Thailand.

1.6 Duration

January 2004 – March 2005