

CHAPTER I

INTRODUCTION

1.1 Background and Rationale

Dengue Fever is known as one of the great neglected diseases of mankind (Halstead, 1992). Unable to combat the vector *Aedes* mosquitoes, human beings are increasingly suffering from Dengue Fever (DF) and Dengue Hemorrhagic fever (DHF), resulting in disease burden and premature deaths as well as financial burden. Regarding prevention, dengue vaccines are still under trial and not available yet for public use. The only preventive measure according to the World Health Organization, is to prevent disease transmission by *Aedes* mosquitoes. To achieve effective prevention and control, community cooperation and participation is essential. For this reason, knowledge, attitude, and practices of the community play an important role in prevention of Dengue Fever.

Global Burden of Dengue Fever

Dengue Fever is now endemic in more than 100 countries in Africa, the Americas, the Eastern Mediterranean, South-East Asia and the Western Pacific. The major disease burden is in South-East Asia and the Western Pacific. Prior to 1970, only nine countries in the world had experienced DHF epidemics; by 1995, the number had increased more than four fold. 2.5 billion people, two fifths of the world's population, are now at risk from dengue. There is an estimated 50 million cases of dengue infection worldwide and

500,000 cases of DHF each year with a mortality of 2.5-5%. Without proper treatment, DHF case fatality rate can exceed 20% (WHO, revised 2002).

Dengue in South East Asia

Out of 2.5 billion population (living in tropics and sub tropics) at risk of DF/DHF, WHO South-East Asia Regional countries share 52%, i.e. 1.3 billion population. Seven countries in the Region (Bangladesh, India, Indonesia, Maldives, Myanmar, Sri Lanka and Thailand) regularly report disease incidence every year (WHO, 2003). Table 1 and Table 2 show the DHF cases and case fatality rates in Myanmar and Thailand from 1992 to 2001.

Table 1: DHF Cases and Case Fatality Rates in Myanmar (1992-2001)

Year	Number of cases	Case Fatality Rate (%)
1992	1,685	2.19
1993	2,279	2.94
1994	11,647	3.9
1995	2,477	2.14
1996	1,854	0.97
1997	4,005	2.05
1998	13,002	1.51
1999	12,918	0.68
2000	1,816	0.77
2001*	6,087	1.07

* Data up to September 2001

(WHO, 2003)

Table 2: DHF Cases and Case Fatality Rates in Thailand (1992-2001)

Year	Cases	Case Fatality Rate (%)
1992	41,125	0.33
1993	67,017	0.44
1994	51,688	0.27
1995	60,330	0.31
1996	37,929	0.31
1997	101,689	0.25
1998	129,594	0.33
1999	24,826	0.22
2000	18,617	0.17
2001	132,082	0.18

(MOPH, Thailand)

Problem Statement

Mae Sot District is a dengue endemic area with periodic outbreaks occurring every 2-3 years (Swaddiwudhipong et al, 1992). During 2003, the DHF morbidity rate was highest in Mae Sot compared with other districts in Tak Province (Table 3).

Table 3: Morbidity Rate of DHF in various Districts of Tak Province during 2003 (Jan-Oct)

Districts	Morbidity Rate /100,000
Mae Sot	134.40
Sam Ngao	84.71
Mae Ramat	47.81
Tha Song Yang	35.95
Mueang Tak	32.10
Umphang	22.60
Ban Tak	21.25
Wang Chao	14.18
Phop Phra	10.83

Source: Provincial Health Office, Tak Province

In Mae Sot, Myanmar migrants live in overcrowded housing with grossly inadequate water supply (Beyrer C, 1999). Water storage practices, as a result of inadequate water supply, encourage the breeding of *Aedes* mosquitoes and overcrowded living conditions favor the transmission of Dengue Fever (Bohra and Andrianasolo, 2001). Although not all Myanmar migrants can get access to Thai public health services, there are some evidences of DHF occurrence among Myanmar migrants in Mae Sot (Table 4).

Table 4: Myanmar Migrants Diagnosed as DHF Cases in Mae Sot General Hospital (1998-Oct 2003)

Year	DHF cases
1998	56
1999	31
2000	6
2001	110
2002	28
2003*	28

* Data up to October 2003

Source: Mae Sot General Hospital

Dengue Fever is a man-made disease; human behaviors create the breeding places for *Aedes* mosquitoes. To achieve successful prevention and control of Dengue Fever, community cooperation and participation is essential. Therefore, it is justifiable to assess knowledge, attitude, and practices of Myanmar migrants regarding Dengue Fever prevention in Mae Sot. In this research, Mae Sot Sub-District is chosen as the study site because the majorities of Myanmar migrant families are living in Mae Sot Sub-Districts compared with other sub-districts. The reason for choosing woman migrants in this research is that that they are caretakers of the family and they are more likely to stay at home than men.

1.2 Research Questions

- (1) What are the demographic characteristics of migrant woman caretakers from Myanmar in Mae Sot Sub-District?
- (2) What are their knowledge, attitude and practices regarding Dengue Fever?
- (3) What is their source of information about Dengue Fever?
- (4) Are there relationships between demographic characteristics and attitude; knowledge and attitude; source of information and attitude; and attitude and practice of Dengue Fever prevention?

1.3 Objectives

General Objective

To assess the knowledge, attitude, and practices of migrant woman caretakers from Myanmar on prevention of Dengue Fever in Mae Sot Sub-District.

Specific Objectives

- (1) To describe the demographic characteristics of migrant woman caretakers from Myanmar in Mae Sot Sub-District.
- (2) To describe their knowledge, attitude, and practices regarding prevention of Dengue Fever.
- (3) To describe the source of information about Dengue Fever.
- (4) To identify relationships between demographic characteristics and attitude; knowledge and attitude; source of information and attitude; and attitude and practice of Dengue Fever prevention.

1.4 Research Hypotheses

There are relationships between demographic characteristics and attitude; knowledge and attitude; source of information and attitude regarding Dengue Fever.

There is an association between attitude and practices of Dengue Fever prevention.

1.5 Operational Definitions

(1) **Demographic characteristics:** age, education, race, occupation, marital status, monthly family income, duration of stay in Thailand.

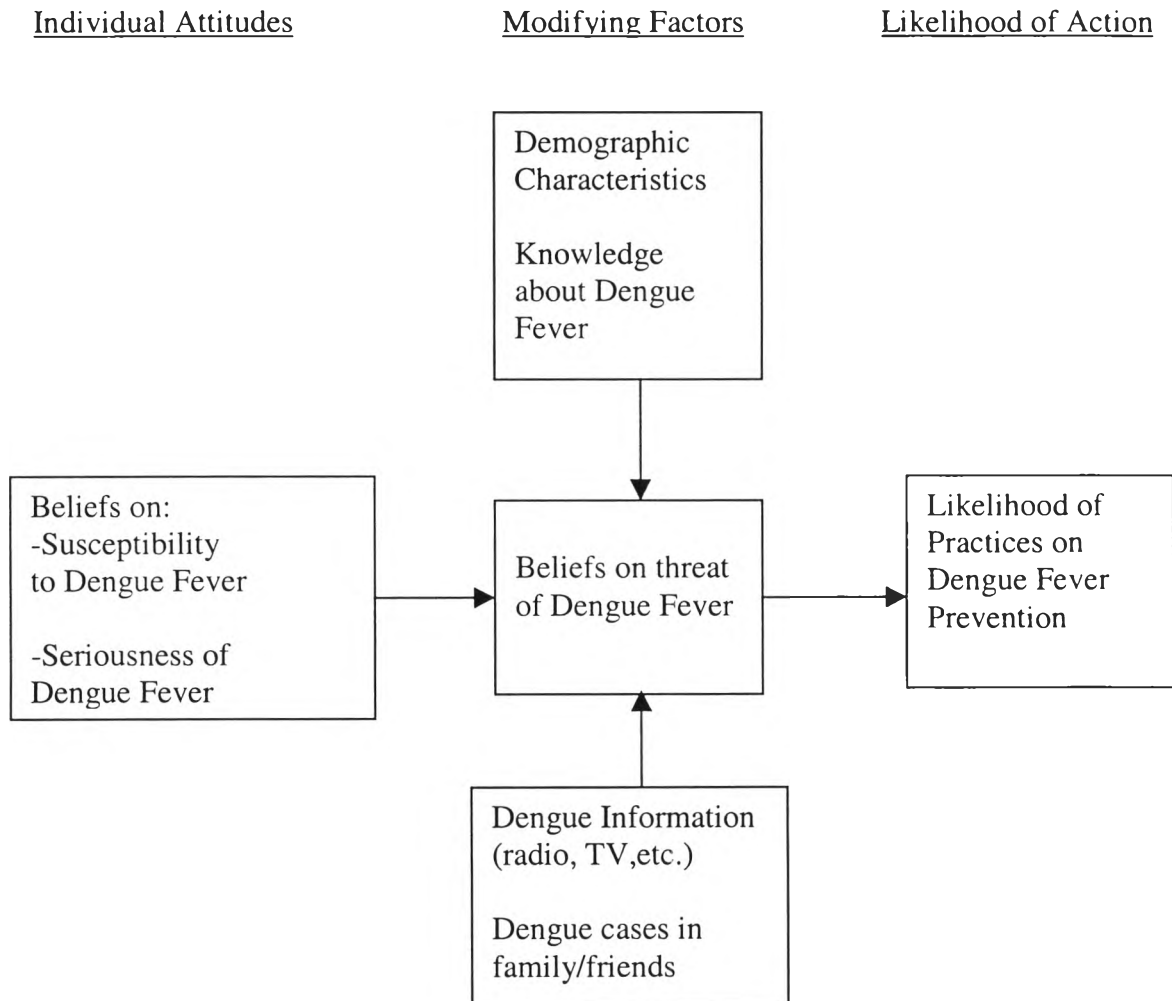
(2) **Knowledge:** basic knowledge concerning cause, symptoms, transmission, prevention and treatment of Dengue Fever.

(3) **Attitude:** beliefs on susceptibility, seriousness and threat of Dengue Fever.

(4) **Practice:** routine activities for prevention of Dengue Fever.

(5) **Source of information:** information about Dengue Fever from media such as television, radio, newspaper as well as from the presence of dengue cases in family or friends.

1.6 Research Conceptual Framework



Based on:

The Health Belief Model (Anspaugh et al, 2000)