CHAPTER I

INTRODUCTION

1. Background and Significance of the Problem

An estimated one third of the world's population is already infected by Mycobacterium tuberculosis. Each year an estimated 8.4 million new cases are produced from this reservoir of infection, and 1.9 million people die of the disease (WHO, 2002). TB kills more young people and adults than any other single infectious agent in the world today. The developing world is the worst affected claiming 95 % of all TB cases and 98 % of TB deaths. Additionally, 75 % of all TB patients in developing countries are among those in their most economically productive years (15-45) (WHO, 1999).

WHO (2003) said the therapeutic regimens recommended by WHO have been shown to be highly effective for both preventing and treating TB, but poor adherence to anti TB treatment acts as a major barrier to its global control. Tuberculosis is a communicable disease, thus poor adherence to a prescribed treatment increases the risks of morbidity, mortality and drug resistance at both the individual and community level.

Mycobacterium tuberculosis has shown a propensity to mutate toward drug resistance, and defaulting patients almost invariably relapse, often with a drug-resistant

train. Retreatment requires more expensive drugs, producing a greater financial burden for either the patient or public health care system. Moreover, defaulting patients remain infectious and constitute a danger to their families and the community; this situation is exacerbated because the infectious organism is then resistant to first-line drugs (Stewart, 1999).

Thailand is one of the 22 TB high countries which includes the set of countries which account for 80 % of the world's burden of TB. The estimated annual numbers of cases and death are 38,000 (sputum smear–positive TB disease), 86,000 (total incidence of TB disease) and 13,000 (deaths from TB disease). According to the National TB program report, default rate in Bangkok was 19 % from 1999 to 2003. The review of the National TB Program in Thailand conducted by WHO in 2003 showed that the default rate varied between 5 % in rural areas to 23 % in Urban areas with high default rates being reported from municipalities, prisons and with patients when transferred between provinces (WHO, 2004).

The government of Thailand adopted the WHO recommended case management strategy known as directly observed treatment, short course (DOTS), in 1996. The National TB control program achieved rapid expansion of DOTS, covering all districts in the country by 2001.

Bangkok, the capital, has approximately 10 million people accounting for a sixth of Thailand's population. It has all the characteristics of a metropolis many of which are relevant to TB control. The health care needs of the people of Bangkok are

addressed by a multiplicity of providers including pharmacies, public health centers and private clinics; large and small public, private, corporate hospitals, academic institutions, and a few non-government organizations. (WHO, 2004)

TB control through DOTS and provision of quality services under DOTS across the city is the responsibility of BMA (Bangkok Metropolis Administration). The BMA has two major administrative departments responsible for health related issues – the Department of Health and the Department of Medical Services. The Department of Health has six co-ordinating health centers, subserved by a central network of 61 health centers and 85 sub-health centers distributed in six zones across the city. The department of Medical services is responsible for running nine large hospitals. Bangkok also has six medical colleges with attached hospitals. In addition, there are hospitals belonging to the military, the police, the port authority and the tobacco monopoly. Bangkok has a thriving private medical sector as well (WHO, 2004).

The TB control policy in Bangkok has 3 parts. The first part involves networks of Health centers. The second part involves establishing DOTS in hospitals under the Department of Medical services. The final part involves expanding DOTS to university and other hospitals including private medical sector. It is known that one private hospital and four private clinics are currently involved in DOTS (WHO, 2004).

Due to the number and diversity of health providers in Bangkok, cooperation between health providers is essential in order to make TB control a success in the city. Also, due to the scattered nature of health centers, the distances between them, the large

amounts of traffic in the metropolitan area, the convenience of patients must be taken into account to ensure patients to commence and sustain treatment from them (Sasapin, 2001).

According to the literature review ,many factors have been associated with defaulting behavior of the patient. These include the social and economic factors, the health care team/system, the characteristics of disease, disease therapies, and patient related factors.

There continues to be a tendency to focus on patient-related factors as the causes of problems with adherence, to the relative neglect of provider and health system-related determinants. These latter factors, which make up the health care environment in which patients receive care, have a major effect on adherence (WHO, 2003).

In the past, in Thailand, many researchers tried to identify the factors affecting treatment defaulting of the tuberculosis patients based on the framework involving comprehensive determinants of non-adherence to treatment. However, investigation of the magnitude of default problem in different health care settings and its contributing factors taking into consideration of diversity of health care providers and complexity of health service has not been conducted so far.

Therefore, retrospective research using secondary data was planned to determine default rate in various health care settings such as health centers under BMA, Bangkok chest clinic, TB clinic in University hospital and private hospital.

Also in those settings, default rate was evaluated comparatively in relation with institutional factors based on information from secondary data and interviews with health care providers.

2. Research Questions

- What are the TB default rates in various health service settings?
- What are the factors contributing to tuberculosis treatment defaulting in different type of health service settings ?

3. Objective of the Research

3.1 General objective

To determine the tuberculosis defaulter rates and the factors contributing to treatment defaulting in various health service settings

3.2 Specific objective

- To determine the defaulter rates in various health service settings
- To evaluate comparatively the factors contributing to tuberculosis treatment defaulting between various health care service settings

4. Conceptual Framework of the Problem

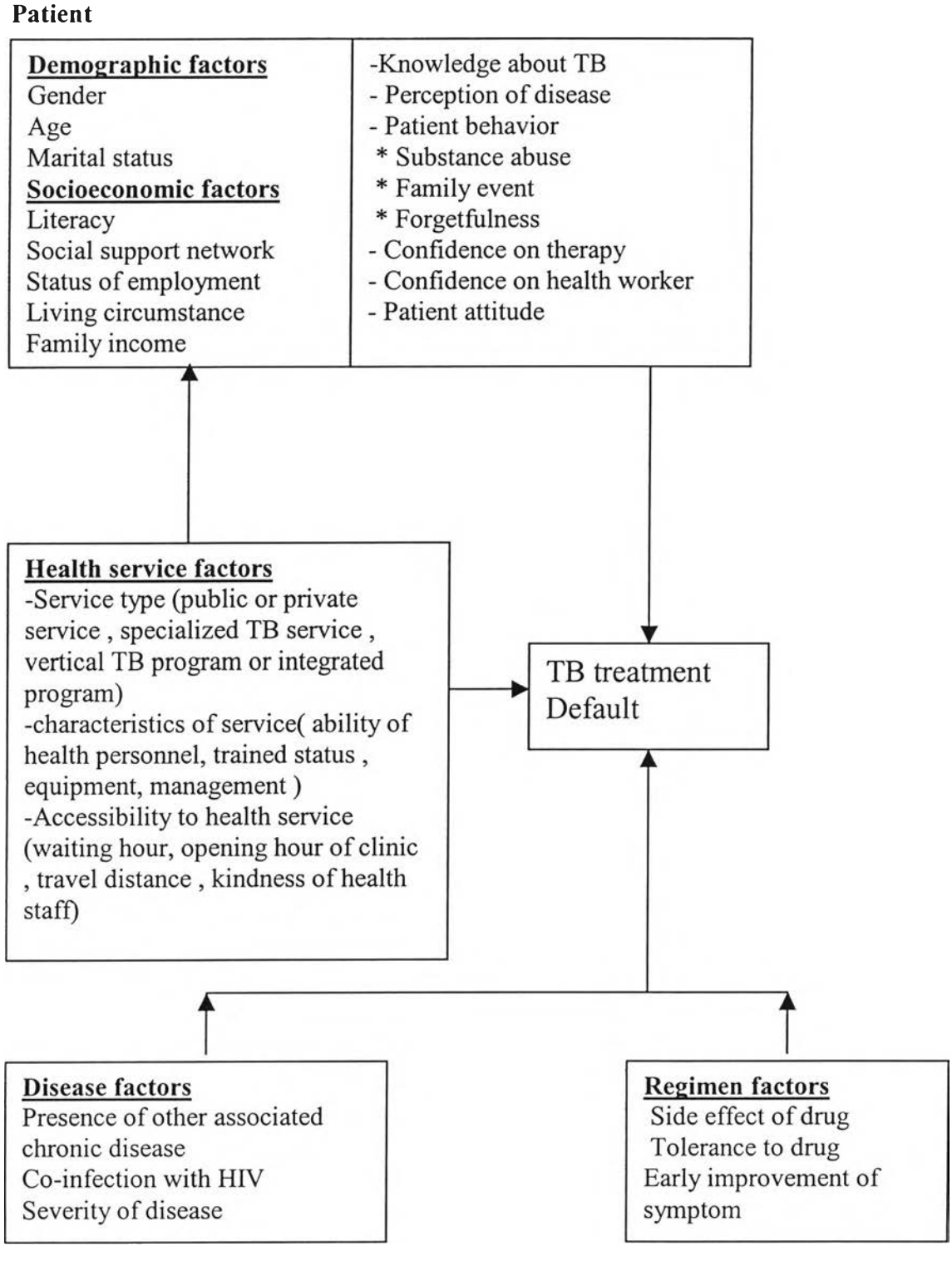

Figure 1: Conceptual Framework of the Problem

5. Conceptual Framework of the Study

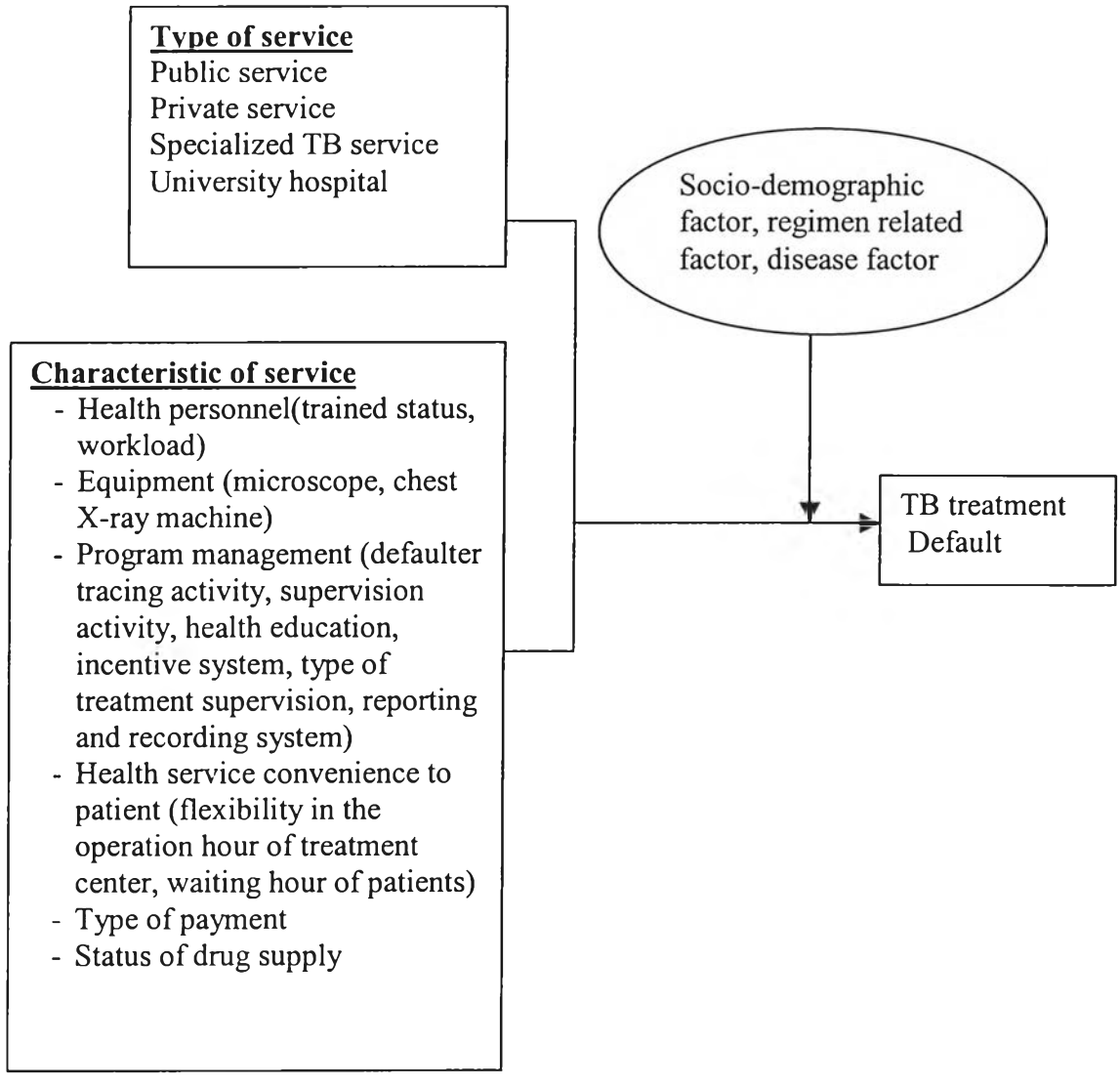

Figure 2: Conceptual Framework of the Study