

# **CHAPTER I**

## **INTRODUCTION**

### **BACKGROUND AND SIGNIFICANCE OF THE PROBLEM**

The World Health Organization (WHO) has set their general targets for National Blood Services with in three main missions: services should be as safe as possible, services should be adequate in order to meet national demand, and services should be conducted at a reasonable cost (WHO, 2002).

Blood bank or transfusion services should have a structure that is clearly defined and one that documents the parties responsible for the provision of blood, blood components, services (including receipt, storage and dispensing of autologous and allogenic tissue) and the relationship of individuals responsible for key quality functions (AABB, 2002:1).

The National Blood Center (NBC) of the Thai Red Cross Society has five main objectives: to provide adequate supplies of blood and blood products to all patients, to assure all units of blood are as safe as possible, to prepare blood components and products and other special products as required, to provide services including special service for transplant patients, and to act as a center for training at national and regional levels for those who are responsible for blood transfusion programs and services (O'Charoen, 2002).

NBC has a policy on Blood Donor Recruitment and Blood Collection. The standard for blood donor selection and blood collection is written in the guidebook for policy

implementation. The Blood Collection Section of the NBC has a facility for screening blood, in order to protect the health of both donors and recipients.

The Thai government created the Ninth National Health Development Plan. One of the main missions of this plan is to achieve a high level of quality within all Thai health system. Following the missions and priorities of WHO and National Health Development Plan, the NBC put in place a quality management system specified in ISO 9002:1994 certified by MASCI. In an attempt the quality of its health care services, later converted to ISO 9001:2000 in 2001.

Since the NBC has implemented a quality management system, “The Customer Voice” seems to be more of a focus. The blood donors are motivated by their desire to help. When blood donors cannot donate blood for a particular reason, they may be disappointed and dissatisfied with both the system and themselves. As a consequence, deferred blood donors’ dissatisfaction may lead to “permanently deferred blood donors”. A study in the United States (Enderson, 1985) showed that deferred blood donors usually do not return for donation within the next 6 months.

In Thailand, NBC data from 2002 showed that those intending to donate blood numbered 152,397; 136,886 (89.83%) of whom were accepted for donation and 15,511 (10.17 %) were deferred (NBC, 2002). Potential donors were not able to donate, that means amount loss of blood supply in each year. Year after year the NBC loses large amounts of blood due to deferred donor. The loss is compounded by those who are deferred and never return in the future.

Phikulsod, Vice director of NBC, suggested a strategy to improve retention of blood donors (Phikulsod, 1999). The NBC should implement a blood donor retention program following these four objectives:

1. The NBC should maintain a safe target group and a clear vision by using strategies to retain blood donors. It should have a plan for current data analysis and future activities. The National Blood Center should write further systematic plans.
2. The NBC should provide adequate and accurate information to blood donors, so they formulate good attitudes in regard to blood donation.
3. The NBC should train staff in customer satisfaction practices, when working with donors before and after blood donation. The NBC staff should answer blood donor questions with clarity and reliability.
4. The NBC should retain repeat blood donors, especially donors over 40 years of age. These older donors are likely to have lower risks of transfusion transmitted diseases than younger blood donors, more free time, and often a healthy lifestyle.

Today, the NBC has not met recruitment targets. This may be a cause of insufficient education program and awareness activities. In addition, NBC lacks sufficient baseline data for identifying and making improvements in the recruitment system.

Current concepts of blood donation from WHO in 2002: “Safe blood starts with me, Blood saves life; To give safe blood is a privilege, receiving safe blood is a right.”

### **EXPECTED BENEFITS OF THIS STUDY**

This study has five expected benefits. 1) to act as a guideline to improve the quality of the deferred blood donor system at the NBC in the areas of appropriate services and customer satisfaction, 2) To help improve the blood donor retention program, 3) To provide important baseline data for improving the quality of NBC activities, 4) To

contribute data for improving present and future NBC policy, 5) To serve as a catalyst in conducting further researcher and the application of acquired knowledge.

## **RESEARCH QUESTIONS**

1. What are the characteristics of deferred blood donors?
2. What is the deferred blood donor perception of the NBC's service?
3. What is the level of deferred blood donor satisfaction at the NBC, Thai Red Cross Society?
4. Is there a relationship between deferred blood donor socio-demographic characteristics and perception of services?
5. Is there a relationship between deferred blood donor perception and satisfaction of deferred blood donors at NBC, Thai Red Cross Society?

## **OBJECTIVES**

### **General Objective**

To evaluate deferred blood donors satisfaction with service processes of the deferral system at the National Blood Center, Thai Red Cross Society.

### **Specific Objectives**

1. To describe the socio-demographic characteristics of deferred blood donors.
2. To measure the services of the deferral blood donor system using deferred blood donor perceptions at the National Blood Center, Thai Red Cross Society.
3. To measure the level of deferred blood donor satisfaction with the deferral system at the National Blood Center, Thai Red Cross Society.

4. To identify possible association between deferred blood donor socio-demographic characteristics and their perception of the National Blood Center, Thai Red Cross Society.
5. To identify possible associations between deferred blood donor perception and satisfaction with services at the National Blood Center, Thai Red Cross Society.

## **RESEARCH HYPOTHESIS**

1. Deferred blood donor socio-demographic characteristics are associated with their perception.
2. Perceptions about the deferral system at the NBC are associated with deferred blood donor satisfaction.

## **VARIABLES OF THE STUDY**

Figure 1.2 shows research conceptual framework with dependent and independent variable.

### **Dependent variable:**

Deferred blood donors' satisfaction about the service processes in the deferral blood donor system is related to place and environment, staff competence, and staff personnel interest.

### **Independent variables:**

1. Socio-demographic characteristics: age, gender, education, occupation, income
2. Number of blood donations

3. Perception of deferred blood donors regarding National Blood Center policy and staff practices

## **TERMINOLOGICAL AND OPERATIONAL DEFINITIONS**

### **1. Terminological Definitions**

#### **1.1 Deferral system (Figure 1.1)**

The Deferral System is the system that the National Blood Center uses for screening blood donors to assure blood safety. The system is used before blood is donated.

It consists of 4 steps:

- Reception and a self-deferral questionnaire
- An interview by a physician or a trained nurse
- Hemoglobin test and Technician interview
- Computer check of previous data of the blood donor and verification through an information staff interview.

#### **1.2 Deferred blood donor**

A deferred blood donor is a blood donor who fails to meet the criteria of the National Blood Center and who must defer or forego giving blood (Phikulsod, Subhachaturas, Vivanchakul, 2003). Deferral criteria are defined by the Guideline of Blood Donation Selection, National Blood Center, Thai Red Cross Society. The deferral system is necessary to ensure the safety of the blood supply.

#### **1.3 Deferred blood donor satisfaction**

Refers to the degree of positive-negative feelings towards the quality of the deferral system by the deferred blood donors' expectations in three areas: place and

environment, staff competence, and personnel interest. Deferred blood donor satisfaction will be measured using an ordinal scale questionnaire.

#### **1.4 Practices**

Practices are actual staff activities of the National Blood Center which are prescribed in the blood donor selection guidebook, standard operating procedure, and work instruction for deferred blood donors.

#### **1.5 Perception**

Perception consists of the opinions of deferred blood donors that change the knowledge and/or attitude of deferred blood donors. Altered perception causes changes in deferred blood donor practices.

#### **1.6 Working hours of National Blood Center**

Working hours of the National Blood Center are Monday – Friday: 08.00 – 16.30, except Thursday: 07.30 – 18.30. An over time period is conducted Saturday: 08.00 – 12.00 and Sunday: 13.00 – 16.30.

#### **1.7 Blood Donation**

Blood donation is the withdrawal of blood from a vein in the arm. A blood donor gives 350 to 450 milliliters of blood or 6-7 % of blood volume. The blood is in turn used by patients in need. Donors do not receive money or expect other benefits in return.

## **2. Operational Definitions**

### **2.1 Perception of potential donor about deferral blood donor system at National Blood Center**

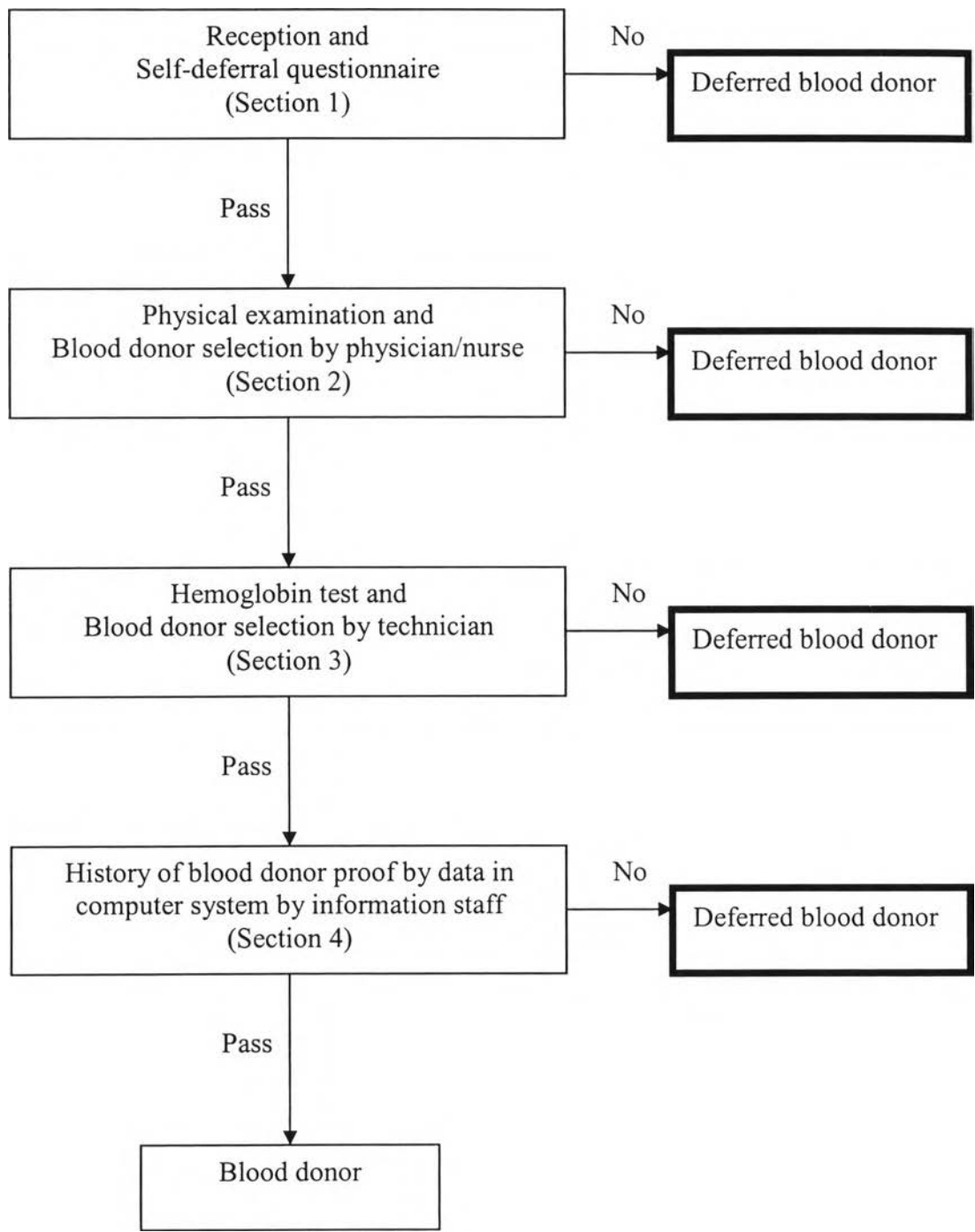
This study focuses on three aspects of perception: place and environment, staff competence, and staff interest. These aspects are reflected in further detail in 4 main areas: manpower, method, machine and material. These are measured by an ordinal scale questionnaire.

### **2.2 Deferred blood donor satisfaction**

Satisfaction refers to the gap between perceptions of deferred blood donors about the quality of the deferral system and blood donors' expectations. It is measured by an ordinal scale questionnaire.



**Figure 1.1 Blood donor selection process at the National Blood Center**



**Figure 1.2 RESEARCH CONCEPTUAL FRAMEWORK**

