

CHAPTER 1

INTRODUCTION



1.1 Background and Rationale

Acquired Immuno Deficiency Syndrome (AIDS) is a complex illness that results from an immune deficiency. The causal agent is the Human Immunodeficiency Virus (HIV). This virus gradually breaks down the body's natural defense mechanism, so the human body is unable to fight off other infections. Each infection weakened a person and is more susceptible to new infections, leading eventually to death (WHO, 1998). The HIV is transmitted by blood contact, by sexual contact, and by infected mothers to their children during pregnancy or at birth. Even though AIDS is fatal, the causes of death among AIDS patients vary. Among them are pneumonia, cancer, meningitis, tuberculosis, syndrome of wasting, recurrent fevers and diarrhea. One of the complicating features of the disease is the long period of latency between the initial HIV infection and the onset of serious illness. During this latent period, infected persons appear healthy, but they can and do infect others. The epidemic thus spreads unobserved and undetected. Some infected persons are identified through routine blood screening and through special surveys in which blood tests for the presence of antibodies are conducted (Janjaroen,1996).

AIDS has spread rapidly throughout the world. The latest UNAIDS/ WHO report estimates that 30.6 million are currently living with HIV/AIDS, of which 5.8 million have been newly infected during 1997, and 590,000 of this figure is children. Everyday nearly 16,000 new people are infected with HIV. Almost 90% of all those infected with HIV live in the developing world. It is estimated that there are more than 800,000 HIV infected people in Thailand. The WHO projects that if the pandemic continues unchecked and at the same pace, nearly 40 million people worldwide will have been infected with HIV by the year 2000 (WHO, 1998). With high cases of mortality and morbidity and the lack of

curative treatment or a vaccine under current medical technology, AIDS is considered one of the critical issues of this century.

By the year 2000, the overall cumulative cost of AIDS in Thailand is estimated to be US\$9 billion (WHO, 1998). The AIDS epidemic has caused Thailand much loss of life and suffering, though Thailand has made remarkable progress against the spread of HIV. However, efforts of reducing the spread have been stalled for the moment. According to the Thai government, reducing AIDS epidemic is one of the important goal of the health care reform. By integrating HIV/AIDS concerns into health care reform, it is hoped that this problem can be dealt with all level of health sectors.

In Thailand the largest proportion of AIDS cases are in the upper part of northern region, mainly in rural areas (MOPH,1997). HIV has been spreading quietly into Phayao Province in the northern region since the late 1980s. By 1993, AIDS started showing itself in most communities. For many people, it seems to be too late. Phayao Province is the worst area in Asia hit by HIV/AIDS. It became the province with the highest rate of AIDS reported cases i.e. 150.7 per 100,000 inhabitants in December 1998 (UNAIDS et al,1998).

In this study, provider direct cost for the treatment of HIV/AIDS patients and prevention of the spread of HIV infection from HIV positive persons is considered as the cost burden of HIV/AIDS. This study will focus only on Chun District Hospital in Phayao Province. The reason to choose this hospital as a representative hospital is that this hospital has provided care for HIV/AIDS patients. The cost of care is related to activities which are directly concerned with HIV-positive persons. Most of these HIV infected persons will become full-blown AIDS cases sooner or later, and they will create a huge cost burden for the hospital. The cost of providing care and treatment for HIV/AIDS patients in hospital is high and they consume a large amount of resources. Owing to the increasing number of AIDS patients, hospital beds are not sufficient to meet the demand. Many of HIV/AIDS patients need to be taken care in the wards. The HIV/AIDS inpatients thus incur a heavy cost of hospitalization. The cost of HIV/AIDS treatment is about 4-5 times higher than in the case of normal disease, due to a longer length of stay

of HIV/AIDS (10 days) than average inpatients (Takeuchi, 1998: Interview with Indaratna, 29 September, 1998). Prommool conducted a survey in 1995 to measure the cost of care provision for HIV/AIDS patients in government hospitals. The result showed that the hospitals had to face an enormous financial burden.

The study aims to estimate the burden of treatment cost the HIV infected patients, which is borne by the government and also tries to evaluate how much HIV/AIDS has increased the burden of the health care system. One way of doing this is to evaluate the rise of activity in the health system and the health care cost associated with HIV/AIDS. Knowing the cost burden will allow the health system to determine what percentage of resources HIV/AIDS patients will consume, and is able to estimate the growth of health cost associated with AIDS which is usually assumed that HIV/AIDS will put an additional burden on the health care system. Thus, cost can be at least partially controlled and the health system can be better prepared to respond to the needs of its patients in the long-run as well as the short-run. This study will also emphasize the need of early detection of HIV to health care workers.

1.2 Research Questions

- 1) What is the cost burden of HIV/AIDS on the health care service in a district hospital from the provider's perspective?
- 2) What is the increase in the cost burden due to HIV/AIDS between 1992 and 1998?

1.3 Research Objectives

General Objective

This study is intended to assess the cost burden of HIV/AIDS patients from the provider's perspective at a district hospital in the Northern region of Thailand.

Specific Objectives

- 1) To estimate the total cost and the unit cost of HIV/AIDS patients in Chun District Hospital.
- 2) To determine the proportion of the cost of HIV/AIDS patients to the total cost of the hospital or the cost burden of HIV/AIDS patients in the hospital.

1.4 Scope of the Study

The scope of this study are as the follow:

- 1) Focus on the cost burden of HIV/AIDS from the provider's perspective at the Chun District Hospital in Phayao Province.
- 2) Limit to the cost and types of care to symptomatic and asymptomatic HIV/AIDS patients, inpatients and outpatients including pediatric and adult patients, and the cost of promotion and prevention compared to the cost of normal patients and HIV/AIDS patients, but excludes the cost to HIV patients who are undiagnosed. Also, no systematic assessment of the seroprevalence among patients will be conducted.
- 3) Emphasize only on the direct cost of care for HIV/AIDS patients. Opportunity cost will not be analyzed. The estimation of direct cost and the comparison of the cost burden of HIV/AIDS patients and non-HIV/AIDS patients was based on the data collected between 1992 and 1998.

1.5 Hypotheses

- 1) The unit cost of HIV/AIDS patients for out-patient departments and in-patient departments are higher than the unit cost of out-patients and in-patients of other diseases.
- 2) The proportion of the cost of HIV/AIDS patients to the total cost of the hospital tends to increase over time.
- 3) AIDS leads to an increase of recurrent cost to the community hospitals.

1.6 Definition

Capital cost:

Capital cost is the cost of building, vehicle, and equipment. Capital cost of care for patients in hospital is calculated through identifying proportion of buildings, vehicles and equipment directly used for HIV/AIDS patients.

Day care service:

Day care services are all types of care, treatment and support provided by doctors, nurses, and volunteers (HIV/AIDS patients) for HIV/AIDS patients.

Direct cost:

Direct cost incurred by providing care for HIV/AIDS patients (i.e. Provider cost). Direct cost is divided into capital cost and recurrent cost.

Home health care service:

Home health care service (HHC) or home visitation is an activity that provides medicine, treatment, advice, and the helpful support such as a present kit which is a set of medicine, and medical supplies from Phayao Provincial Health Office and other donors to patients at their home.

Health promotion:

Health promotion is an activity intended to increase health education. It includes promotion of participatory rural appraisal, community meetings, training, health education to prevent AIDS, and promotion of care for HIV/AIDS patients in the family and society, etc. .

HIV/AIDS patients:

HIV/AIDS patients mean symptomatic HIV and AIDS patients who receive care and treatment.

Maternal and Child Health Service:

Maternal and Child Health specifies only health services at the District Hospital including 5 activities as follows:

1) Antenatal care (ANC) includes ANC counseling, practical examination, urine pregnancy test, lab test, immunization and nourishing medicine for pregnant women until post-delivery care.

2) Delivery care is the service provided for pregnant women and the care of new born babies as in other hospitals.

3) Family Planning (FP) is counseling concerning family problems, premarital counseling, counseling during family planning, including contraception and condom distribution.

4) Expanded Program Immunization (EPI) is the health services that are provided for children at the District Hospital and in the responsibility area.

5) The Well Baby Program is provided for children 0-5 years and is concerned with growth and development.

Other health service activity:

Other health service activity in this study includes two types. The first one is the service for patients i.e., sanitary, dental, operation room, and the other is auxiliary services i.e., administration, laundry, supply, pharmacy, laboratory, X-ray, and registration. These services are not included in this study.

Recurrent cost:

The cost components of recurrent are the cost of personnel, material supply, maintenance, and operating included in recurrent cost. The cost items of material supply consist of medical materials, drugs, food, and stationary. Car reparation and other cost for maintaining equipment, and buildings are included in maintenance cost. Operating cost consists of electricity, fuel, telephone, water, gas and mailings.

Unit cost:

The unit cost is an average cost per out-patient and in-patient at Chun hospital in 1998. This is calculated by dividing annually the total cost of care provided directly for HIV/AIDS patients by the total number of patients who visited and were admitted to this hospital during 1998.

1.7 Expected Benefits

It is expected that this study will reveal the cost burden of HIV/AIDS to the government and convince the decision makers and policy planners to find out strategies, the effective ways of allocating resources, and the alternative financing methods to reduce the cost burden of HIV/AIDS. The findings will also help policymakers to make informed choices how much resource should go into the prevention and the treatment of HIV infection, and other diseases.