



CHAPTER 1

INTRODUCTION

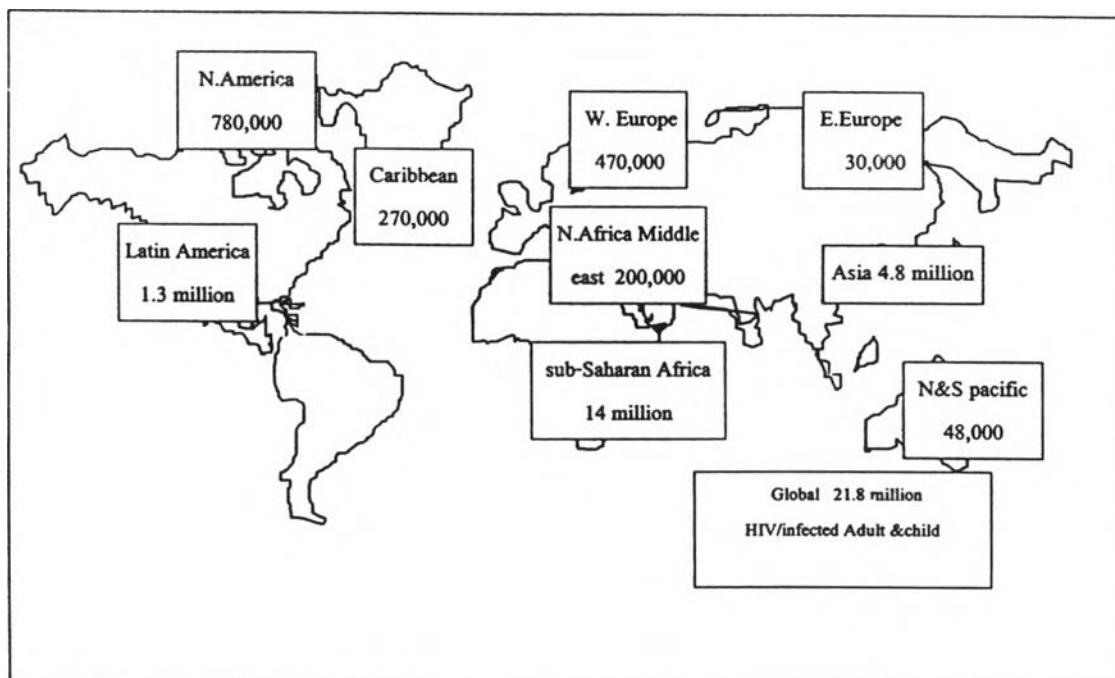
1.1 Background

The Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS) is one of the major health problems facing the world. Infection has spread worldwide, ignoring national boundaries as well as divisions of age, race, gender, class, sexual orientation, religion and education. Moreover it can affect economies in the long run of many countries or even short run in micro economies, such as in individual case who is infected HIV. Available research in both developed and developing countries indicated that the per case medical care cost of AIDS is very high relative to the costs of diagnosing and treating other serious illnesses. The epidemic's size and its distinctive economic characters will have substantial implications for such indicators of macro economic performance as economic growth, GDP and GDP per capita. The AIDS epidemic imposes large costs in individuals and their families that will be translated into aggregate costs that could become large enough to create national economic crisis (Lyons, 1993). It has become truly global in scope. It can be called our modern pandemic, as it affects both industrialized and developing countries alike as there is no effective cure or vaccine.

According to the estimates of the World Health Organization (WHO) and United Nations Development Programme (UNDP) in mid 1996 there were 21.8 million cases in the world, of which 20.4 million AIDS cases (94.1%) were in developing countries (Pinpratip Poldesh, 1996). Nearly 19 million cases (68%) were in sub-Saharan Africa, South and South-East Asia. All of the HIV/AIDS patients in the world were adults. By sex; there were 12.2 million males (58%) and 8.8 million females (42%). So the sex ratio of adult AIDS patient (male : female) was 1.4 :1. The

incidence of HIV/AIDS among adults in 1995 showed that there were 1 million cases per year or nearly 3,000 cases/day in South East Asia (SEA), and 1.4 million cases or nearly 4,000 cases/day in Sub-Saharan Africa, in the industrial countries 55,000 cases or nearly 150 cases/day. The estimate of new born infants infected HIV/AIDS revealed that there were 500,000 cases/year (67%) in Sub-Saharan Africa, 30% in SA/SEA. The cumulative estimate of HIV/AIDS since its outbreak up to mid 1996 showed that there were 27.9 million cases of which 19 million cases were in Africa and 5 million cases in Asia. In Africa, about three-fourth of the continent have been infected by HIV/AIDS and 18 countries have more than 100,000 cases; in regional terms this means central Africa (37%), South Africa (38%), West Africa (15%), North Africa and the Middle East (10%) respectively. Available reports show that blood transfusion is a major mode of transmission of AIDS in Africa. Further, population displacement, migration and rapid urbanization enhance spread of HIV/AIDS. Truck drivers, merchants and soldiers were reported to be the risk groups of HIV. In South America and the Caribbean, the infection rates are low: the estimate shown in Figure. 1 reveals that the total HIV/AIDS cases were 1.3 million/year; 80% of the cases acquired the disease by sexual contact. The situation reached crisis with the predominance of unsafe sex practices among adolescents. In South America, there were 106,841 cases of HIV reported (75% were in Brazil) of which about 74% of AIDS cases were infected by unsafe sex (Pinpratip, 1996).

Figure 1 Estimated Number of Persons Living with HIV/AIDS - July 1996



Source: Pinpratip, 1996.

There were 780,000 cases of HIV/AIDS in North America, and it is estimated that there were 34,000 cases in USA and Canada in 1995. Between 1990-1994 around 3.2/10,000 of female adults were infected HIV in Canada and 15.2/10,000 infected fetuses were still born in USA. There were 160,982 cases of HIV/AIDS in 850 million population in 50 countries of Middle Europe and Eastern Europe and Middle Asia. AIDS incidence was less than Eastern Europe, Northern and South Pacific. A lower number of HIV/AIDS patients i.e., 8.5% of total is in the homosexual group. The estimated number of HIV/AIDS is shown in the Figure.1.

At present, the epicenter of the HIV/AIDS epidemic is shifting from Africa to Asia (World Bank, 1996). A latest estimate by UNAIDS (1997) shows the cases in HIV/AIDS in Asia as around 4.8 million. However, WHO (1997) estimated that about 3.5 million people have been infected with HIV/AIDS in Asia, and the

cumulative infections in the region are expected to reach more than 10 million by the year 2000.

HIV infections are increasing more rapidly in South-East Asia than anywhere else. The table 1.1 shows that Thailand has the highest number of AIDS case in SEA region. The country is going to face many problems in the near future.

Table 1.1 Situation of HIV/AIDS in South East Asian Countries, 1997

Countries	AIDS		HIV
	Reported cases	Estimated infection	Rate per 100,000 population
Thailand	59,782	800,000	1,345
India	3,183	2,500,000	262
Indonesia	128	95,000	47
Myanmar	1,822	350,000	737
Srilanka	74	6,000	32
Nepal	87	5,000	22
Bangladesh	10	<20,000	<16
Bhutan	0	75	12
D.P.R. Korea	0	100	<1
Total	65,091	>3,750,000	>258

Note: Population estimates for 1996 for all countries except Bhutan are based on UN population figures for mid-1994 with annual growth rates applied as appropriate.

Source: WHO/SEARO, STD/AIDS unit, (1997).

Table 1.3 Reported AIDS Cases by Age Group, 1984-1997

Age Group	Year							
	1997				Cumulative Cases in 1984-1997			
	Male	Female	Total	Percent	Male	Female	Total	Percent
0-4	267	262	529	3.95	1,993	1,801	3,794	4.94
5-9	53	31	84	0.63	144	87	231	0.30
10-14	4	5	9	0.07	13	15	28	0.04
15-19	58	79	137	1.02	417	484	901	1.17
20-24	845	639	1,484	11.08	6,904	3,087	9,991	13.00
25-29	3,112	813	3,925	29.32	18,567	3,535	22,102	28.76
30-34	2,784	530	3,314	24.75	15,256	2,342	17,598	22.90
35-39	1,600	295	1,895	14.15	9,423	1,289	10,712	13.94
40-44	852	179	1,031	7.70	4,657	691	5,348	6.96
45-49	377	85	462	3.45	2,348	365	2,713	3.53
50-54	201	26	227	1.71	1,187	161	1,348	1.75
55-59	124	18	142	1.06	851	123	974	1.27
60+	129	20	149	1.11	1,004	115	1,119	1.46
Total	10,406	2,982	13,388	100	62,764	14,095	76,859	100

Source: MOPH, Thailand 1997.

Table 1.3 shows the distribution of AIDS cases by age group and sex in different periods. The table reveals that 86.61 percent of AIDS cases belong to productive age groups (15-44 years old). According to the MOPH between 1997 and 2000 the present value of the aggregate direct and indirect cost of the projected AIDS cases and AIDS death would be total between US \$ 7.3 and US \$8.3 billion. AIDS is

likely to have an even broader economic impact on the Thai economy (Viravaidya, 1993).

HIV/AIDS infects mainly adults during their sexually active years and is inevitably fatal. When individuals first become ill, they work less and may seek medical care. The loss of income due to reduced time spent working and the increase in medical expenses will result in fewer resources available for the rest of the family to meet their needs, e.g. on food. However, other members may reorganize their time to minimize the income loss and smooth out consumption. This often forces many children permanently out of school, which lowers their future earning capacity. Some households may have to sell their assets to pay for medical care and other household consumption.

When individuals suffer from AIDS - related illness and ultimately die, their families are affected by an immediate reduction in their resources and welfare. The infected individual's earning ability is reduced, and eventually the household loses all of that individual's earning capacity. However, families do not react passively. Rather, they minimize the impact on their overall welfare. The loss of a family member of prime working age can adversely affect the welfare of surviving family members, especially if the deceased was the family's main bread winner. The impact will be even worse if the family does not have any other major earning source member.

In the long term, AIDS can hinder social and economic development of countries by reducing the supply of skilled workers, and in the extreme case, by reducing the actual labor force. It can also have an adverse effect by reducing the domestic savings as both the private and public sectors use more funds to cope with the impact of the disease. A number of economic studies support this view. These

studies indicate that in a few countries in Africa, the HIV and AIDS epidemic has diminished the annual growth rate of national income by as much as two-thirds of a percentage point, and diminish the annual growth rate of national income per person by as such as one-third of a percentage point through the year 2010 (Cuddington and Hancock, 1994).

A number of studies on the economic impact of HIV/AIDS on households have been conducted in Asian countries, so as in Thailand. Those studies have looked into the economic impact on households particularly on household income, expenditure, savings and labour. The studies, however did not show the magnitude of the effect on household expenditure or demand on goods and services due to fall in income of the HIV/AIDS infected families. When income of the households decreases, they will shift their decision to spend on various goods and services. In such cases consumption of some essential goods and services may be foregone for want of money. When the income of households changes, how much the demand for goods and services affected is remains unexplored. In other words, the effect of household consumption reallocation due to change in income of the AIDS affected families has not been examined by any study. A study on this aspect will be essential to know how the consumption pattern of households changes due to HIV/AIDS. This study will mainly focus on the economic impact on household consumption reallocation of HIV/AIDS infected households in Thailand.

1.3 Research Questions

1. What are the effects of the cost of HIV/AIDS on household consumption expenditure ?
2. What is resource allocation effect of HIV/AIDS on household consumption?
3. What is the potential economic growth in a situation with out HIV/AIDS ?

1.4 General Objective

This study aims at examining the economic impact of HIV/AIDS on household demand for goods and services and economic growth in Thailand.

1.5 Specific Objectives

1. To estimate the average cost of AIDS by income class.
2. To re estimate household expenditure in a situation without HIV/AIDS.
3. To estimate the economic impact of HIV/AIDS on household demand for goods and services in Thailand.
4. To estimate the change in demand for domestic and imported consumer goods.
5. To estimate economic growth in a situation without HIV/AIDS.

1.6 Expected Benefit and Applications

The result of this study will highlight the economic impact on household demand for goods and services and help convince the decision makers and policy planners to emphasize more on prevention and to find alternative ways to assist HIV/AIDS infected families. Other possible benefits would be:

- a) Demand function explored in this study can be used to find the future effect on demand of goods and services by the HIV/AIDS affected families.
- b) Elasticity of demand in terms of price and income can be applied to households suffering from other major diseases.
- c) Indirect estimate in terms of change in demand by HIV/AIDS affected families can be applied to estimate overall impact on economy.

Moreover, this study aims to know the resource re-allocation in case of a situation without HIV/AIDS on household and country. The researcher hopes that the result of this study such as, expenditure in case without HIV/AIDS, resource re-

allocation on households, resource re-allocation in the country, and the resultant economic growth of Thailand would provide a complete knowledge of macro economic effect of HIV/AIDS on the nation and this will help the policy makers and health planners to make appropriate decisions on prevention and control of this deadly disease in the future. Furthermore, this study can be used as a base for a further and more detailed research in this area.