Health Insurance Systems in Thailand

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Preface

The present publication reports on the 8th International Seminar in a sequence of events convened by the Public Health Promotion Centre of DSE since 1995.

It is a well-known fact that the way health services are organized and how they are financed has profound implications on service delivery, access and quality. The establishment of social health insurance schemes has gained importance in many countries of the developing world. Before embarking on health sector reforms in this area, an in-depth study of the complex issues involved and a thorough analysis of the reform options that could be proposed is imperative - international and historical comparison of reforms helps to understand conditions that are crucial for the failure or success of a given reform.

DSE-ZG has developed an approach that aims at combining critical scientific reasoning with hands-on practical views of health reform practitioners, and the recommendations of the participants from previous events have contributed to what we call “international peer learning”: A process in which country groups of senior health planners and senior health policy activists go through a structured analysis of the host country health system and its actual reform projects - in this case the Thai health system - and then apply the same procedure to their own countries. The present documentation demonstrates again that this is a beneficial process for both sides, host country and visiting countries alike.

The participants of the seminar and DSE are grateful for the commitment and the openness with which the Thai side has largely contributed to the success of this learning experience. We are also indebted to all others who have contributed to this seminar; based on their commitment we are confident that similar events of international peer learning - focused on more limited subtopics - can be meaningfully organized in the future.

Bonn, January 2001

Dr. W. Seidel
Director
Public Health Promotion Centre
German Foundation for International Development

Preface

According to the 8th International Seminar on Health Insurance Development and Implementation in Asian Countries during October 16-26, 2000, it availed itself of this opportunity for Thailand to exchange the health insurance experience with the neighboring countries: Cambodia, India, Indonesia, The Philippines and Germany. Each country studies health insurance system, organization management and budget allocation; also they learned strengths and weaknesses of each other to apply their own system.

We have the honor to be host of the international seminar and support the present publication; also, we hope the consequence of the seminar were advantageous to develop continuously the health insurance system of Asian countries. Especially, we expect to join hands the development with German Foundation for International Development (DSE), Health Systems Research Institute (HSRI) and Asian countries in the next opportunity.

Bangkok, April 2001

Dr. Pipat Yingseree, M.D.
Director
Health Insurance Office
Ministry of Public Health

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Overview

CHAPTER 1

Health Care Systems in Thailand

SUWIT WIBULPOLPRASERT, M.D.
Deputy Permanent Secretary
Ministry of Public Health

1.1 Country profile

The Kingdom of Thailand is situated in the continental Southeast Asia, just north of the equator, and is part of the Indo-Chinese Peninsula. The population of Thailand is 62.3 million in the year 2000, and is growing at 1.1 percent per year. The proportion of the elderly population (over 60 years) was 8.6 percent in the same year and is expected to grow to 15.0 percent in 2020 [1]. Thailand is a democratic country with a constitutional monarchy. Thailand's administrative system, comprises three major administrative categories, i.e., central administration, provincial administration with 14 ministries, and local administration. There are 76 provinces, 876 districts, 1,129 municipalities, and 6,397 Tambon Administrative Organizations.

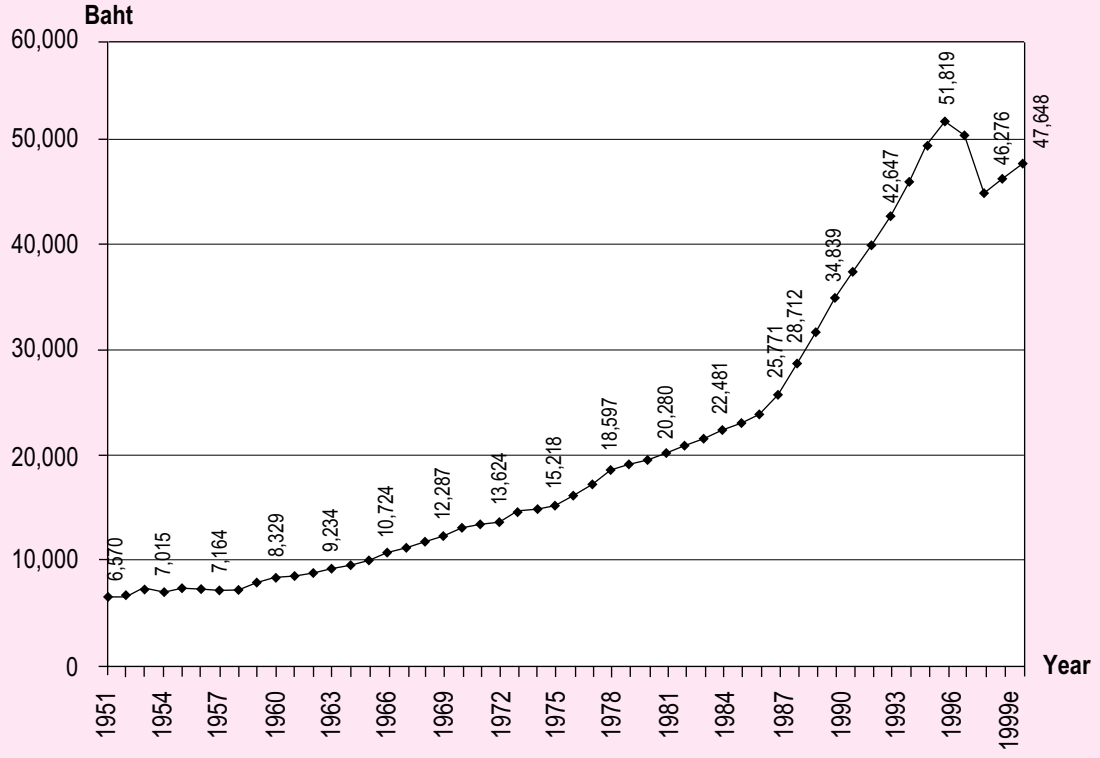
The Thai economic system began to shift from subsistent to the cash crop farming and manufacturing industries with an export led economy since the first National Economic and Social Development Plan in 1961. In 1999, exports shared 53 percent of the Gross Domestic Products (GDP) [2]. The Thai economy grew at an average rate of 7.8 percent annually during the past three decades, with an average annual growth of 10.5 percent during the period 1987-1990 and of 8.3 percent between 1991-1996. In mid-1997, with the start of an economic crisis due to over investment in non-producing assets, the economic growth was -0.4, -9.4, and 3.5 percent in 1997, 1998 and 1999, respectively. The real term per capita GDP in 1999 was around that of 1994 (Figure 1.1) [3]. The currency was also devalued by almost 50 percent. Thailand had to seek assistance from the International Monetary Fund (IMF) in the form of US$17.2 billion loans [4].

1.2 Health situation and trends

1.2.1 Improving physical dimension of health

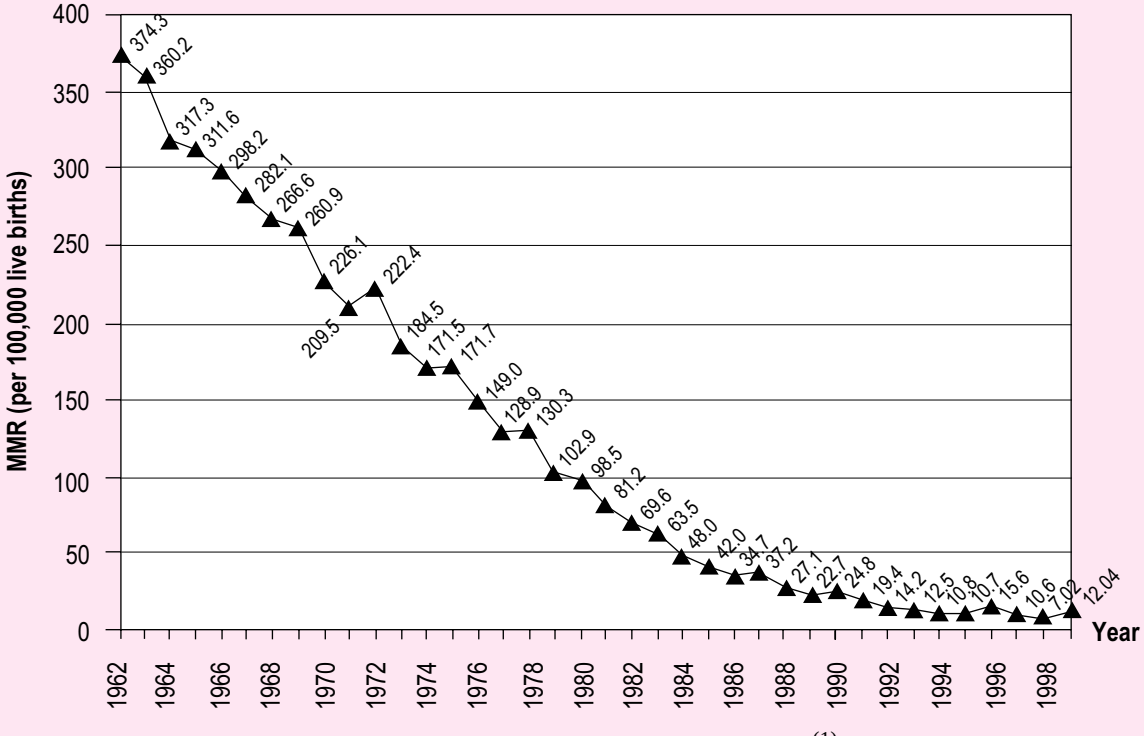
Between 1964 and 1996, the Thai people's life expectancy at birth had increased from 55.9 to 69.97 years in males and 62.0 to 74.99 years in females; by 2020, it is expected to rise to 72.2 years for males and 76.5 years for females. The World Health Report 2000, reported the Thai's Disability Adjusted Life Expectancy (DALE), or Healthy Life Expectancy, at 62.0 years, and was ranked 99th among 191 countries [5].

Figure 1.1 Real term GDP per capita, 1951-2000 (at 1998 Baht value).



Source: National Economic and Social Development Board. in: Wibulpolprasert S, 2000 [(1)].

Figure 1.2 Maternal mortality rate in Thailand, 1962-1999.



Source: Bureau of Health Policy and Plan, MoPH. in: Wibulpolprasert S, 2000 [(1)].

During the past three decades, there has been a markedly decreasing trend of infant mortality rate (IMR: infant deaths per 1,000 live births) — a decline from 84.3 in 1964 to 26.1 in 1996. The maternal mortality rate (MMR: maternal deaths per 100,000 live births) had dropped significantly from 374.3 in 1962 to only 7.0 in 1998 (Figure 1.2) [6].

1.2.2 Deteriorating mental health status

Although there are no specific indicators of mental health status of the Thai people, there have been increasing trends of suicide and mental disorders. The suicidal rate increased from 5.4 in 1986 to 7.0 per 100,000 population in 1997, while the rate of mental disorders increased from 21.0 to 30.7 per 1,000 population during the same period. After the 1997 economic crisis, a telephone survey conducted by the Department of Mental Health revealed a doubling of stress and thinking of suicide among unemployed people [7].

1.2.3 Variation in social dimension of health

Although the economy improved greatly in the past three decades, the gap between the rich and the poor increased. In 1962, the poorest quintile shared 7.9 percent of the national income, while the richest quintile shared 49.8 percent. This gap increased to 4.8 percent and 53.9 percent respectively in 1998 [8]. The physical environment also deteriorated, for example the percentage of fertile forest reduced from 53.3 percent of nation's land area in 1961 to 25.3 percent in 1998 [9]. Air (particularly the particulated matters) and water quality also deteriorated. While safe drinking water and sanitary latrine increased to more than 95 percent in 1998, there are still major problems in the management of urban solid waste and human excreta. On the other hand, the literacy rate of the Thai increased from 78.6 percent in 1970 to 93.8 percent in 1995. The 1999 National Education Act ensures free education for all, up to 12 years of basic education [10].

1.2.4 The epidemiological transition

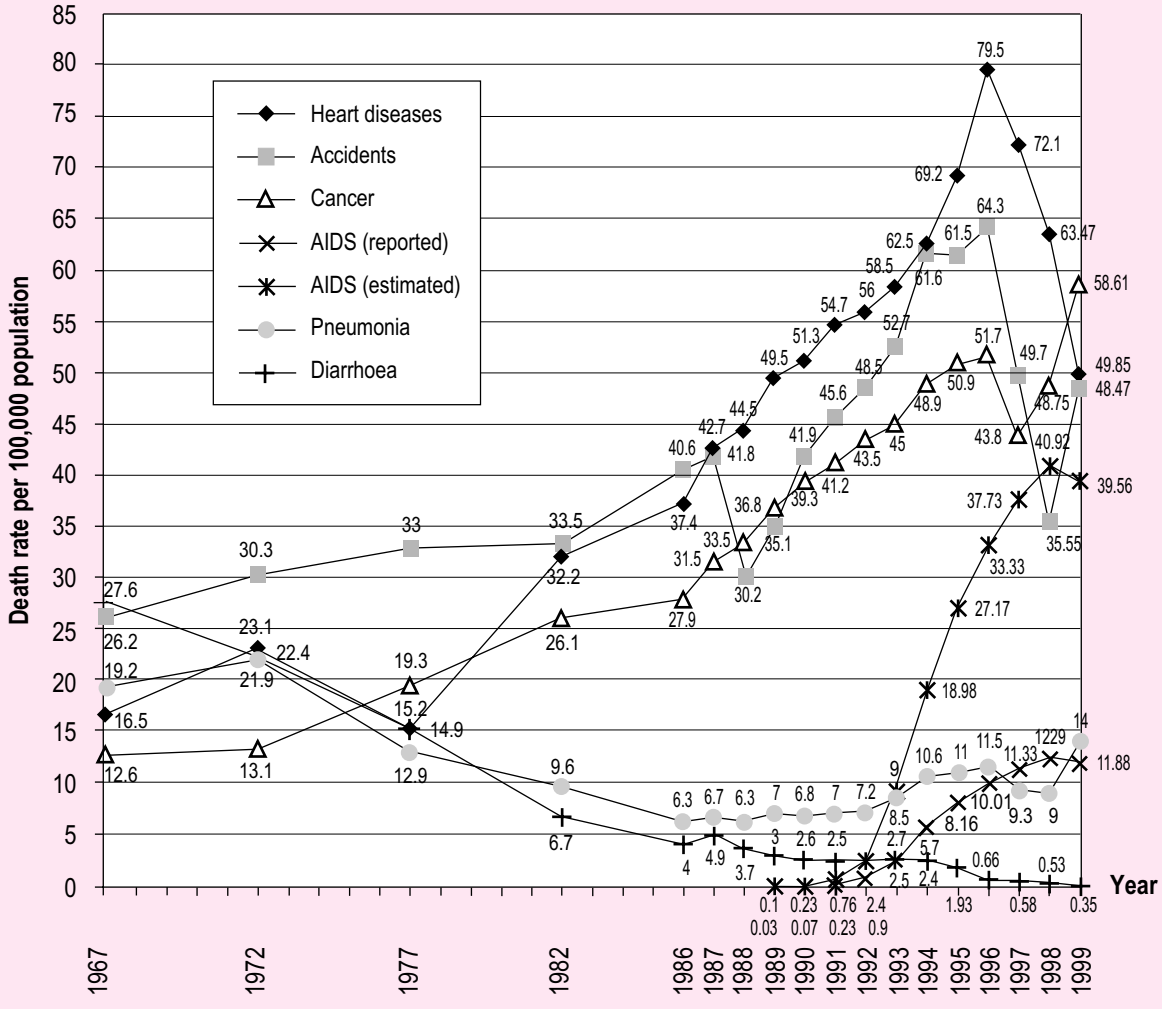
The epidemiological transition started in Thailand since late 70s' with a decreasing trend of diseases among the poverty-stricken and vaccine preventable declined. However, there is still a shortage of health services. On the other hand, non-communicable diseases started to be the leading cause of death (Figure 1.3) [11]. By using multiple indicator, the priority health problems can be determined [12]. HIV/AIDS and motor vehicle accidents ranked first, followed by Diabetes Mellitus, Respiratory Tract Infection, Intestinal Infection, Hypertension, Chronic Obstructive Pulmonary Disease and Cerebrovascular Diseases.

1.2.5 Health problems with decreasing trends

(1) Malnutrition

The proportion of children under five with first degree malnutrition reduced from 20.0 percent in 1988 to 7.9 percent in 1998. Those for second and third degree also reduced from 2.01 percent to 0.53 percent during the same period. There is no deteriorating trend after 1997 economic crisis. However, the underweight rate among school children which reduced steadily to 7.9 percent in 1996, rose to 11.84 percent 12.29, and 10.6 percent in 1997, 1998, and 1999 respectively, possibly as a result of poverty and lack of school lunches during the economic crisis. Anemia among the

Figure 1.3 Death rates due to major causes among Thai people, 1967-1999.



Sources: Bureau of Health Policy and Plan and Epidemiology Division, MoPH. in: Wibulpolprasert S, 2000 [1].

pregnant mothers was also increased [13].

(2) Vaccine-preventable diseases

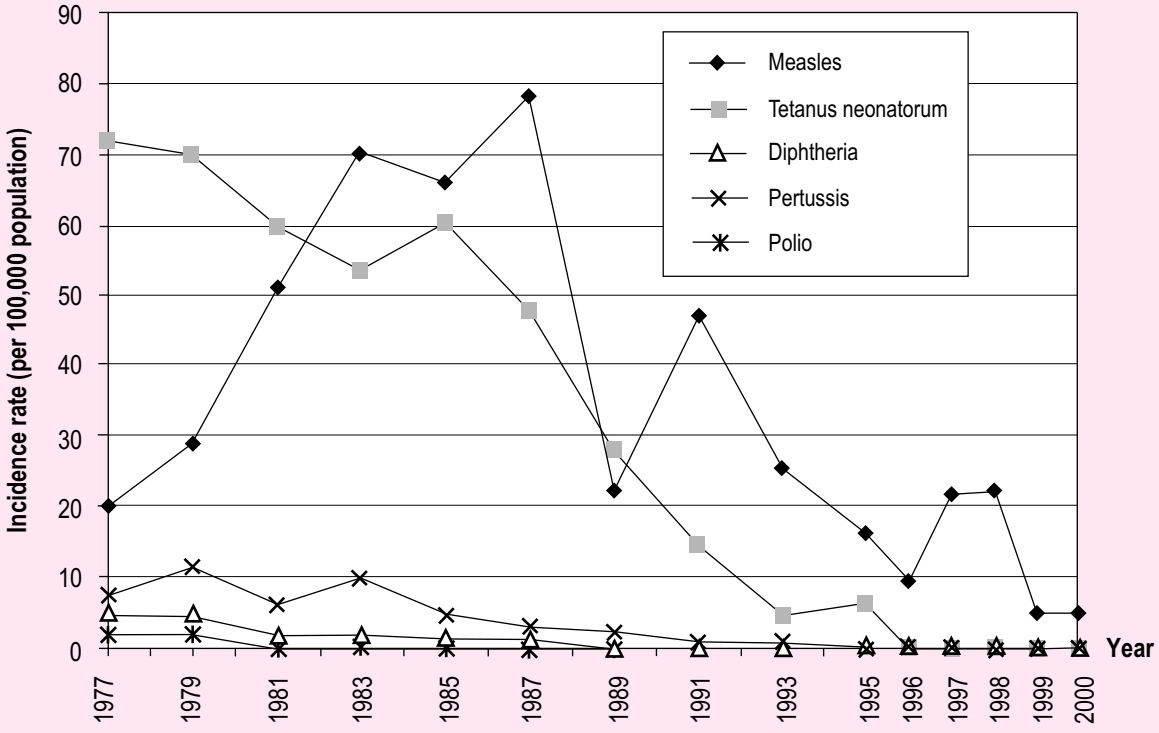
Since 1977 that the MoPH has launched its Expanded Programme on Immunization (EPI) among target populations, the immunization coverage rates have improved significantly. The coverage of most basic vaccines, e.g., DPT, OPV, BCG, Measles, and Hepatitis B, are more than 90 percent of the target groups. As a result, the incidence of vaccine-preventable diseases have decreased dramatically (Figure 1.4) [14].

(3) Other specific infectious diseases [15]

The malaria incidence and death rates nationwide have markedly declined (Figure 1.5).

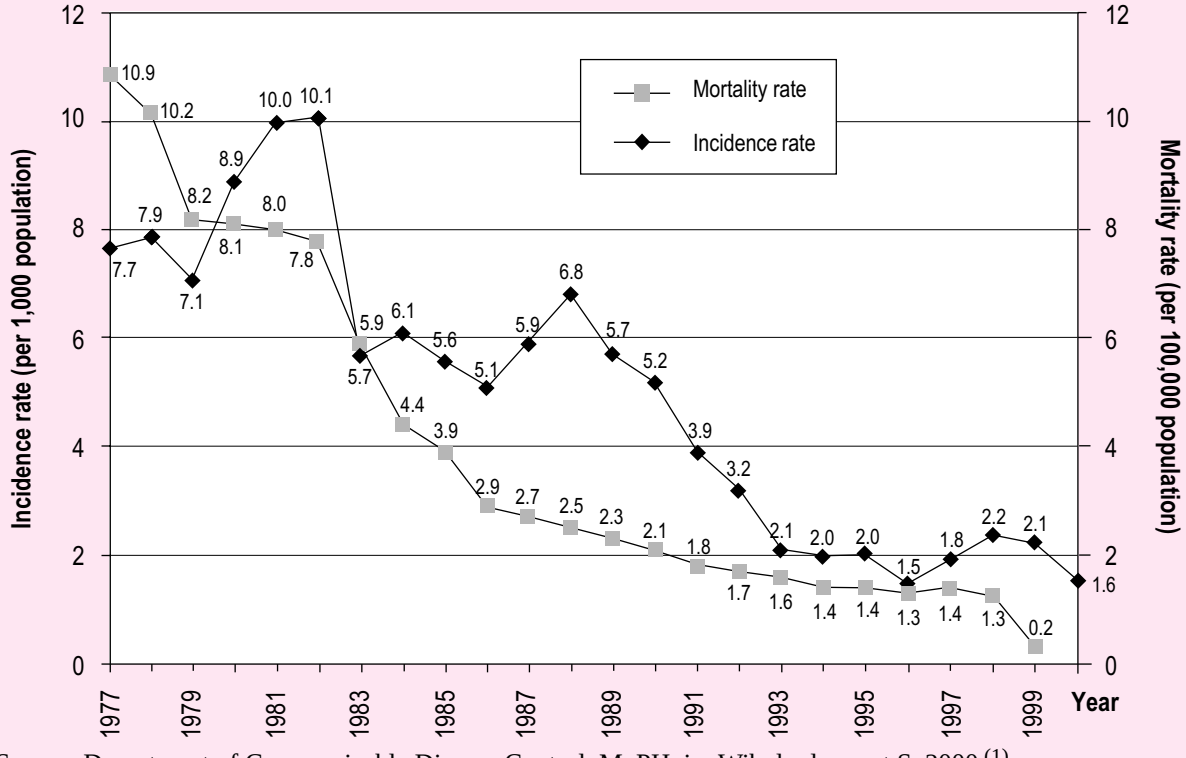
There have also been improving trends of sexually transmitted diseases in Thailand for the period 1987-2000 (Figure 1.6). Leprosy, encephalitis, heminthiasis, and rabies are also on the declined.

Figure 1.4 Incidence of major vaccine-preventable diseases in Thailand, 1977-2000.



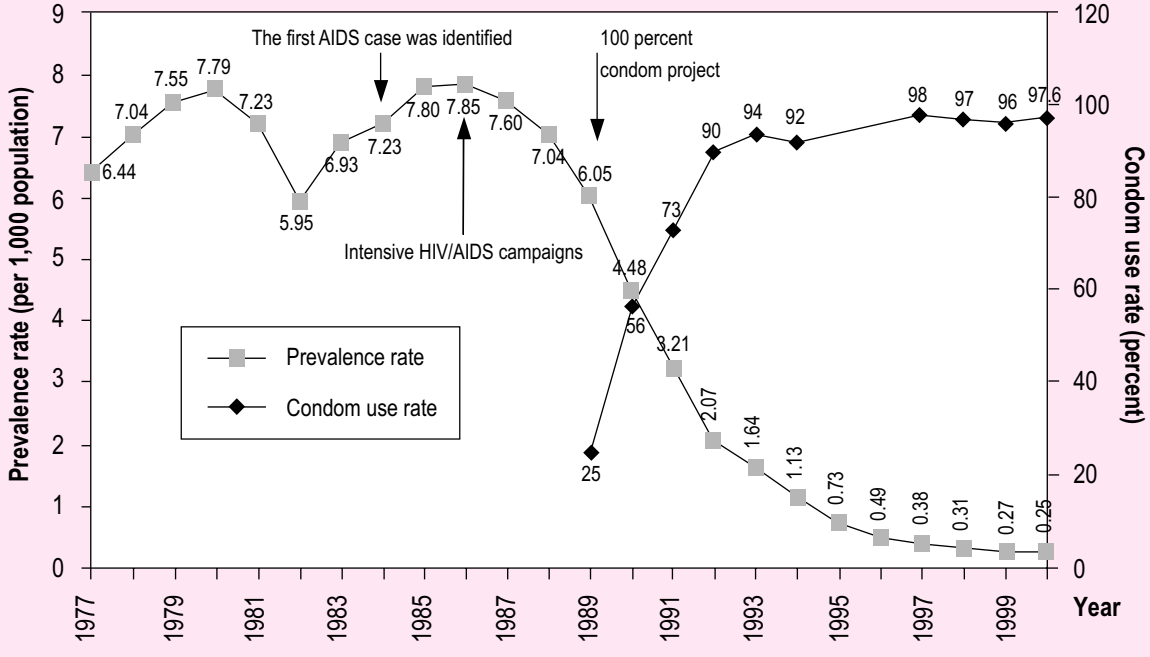
Source: Epidemiology Division, MoPH. in: Wibulpolprasert S, 2000 [1].

Figure 1.5 Incidence and mortality rates of malaria in Thailand, 1977-2000.



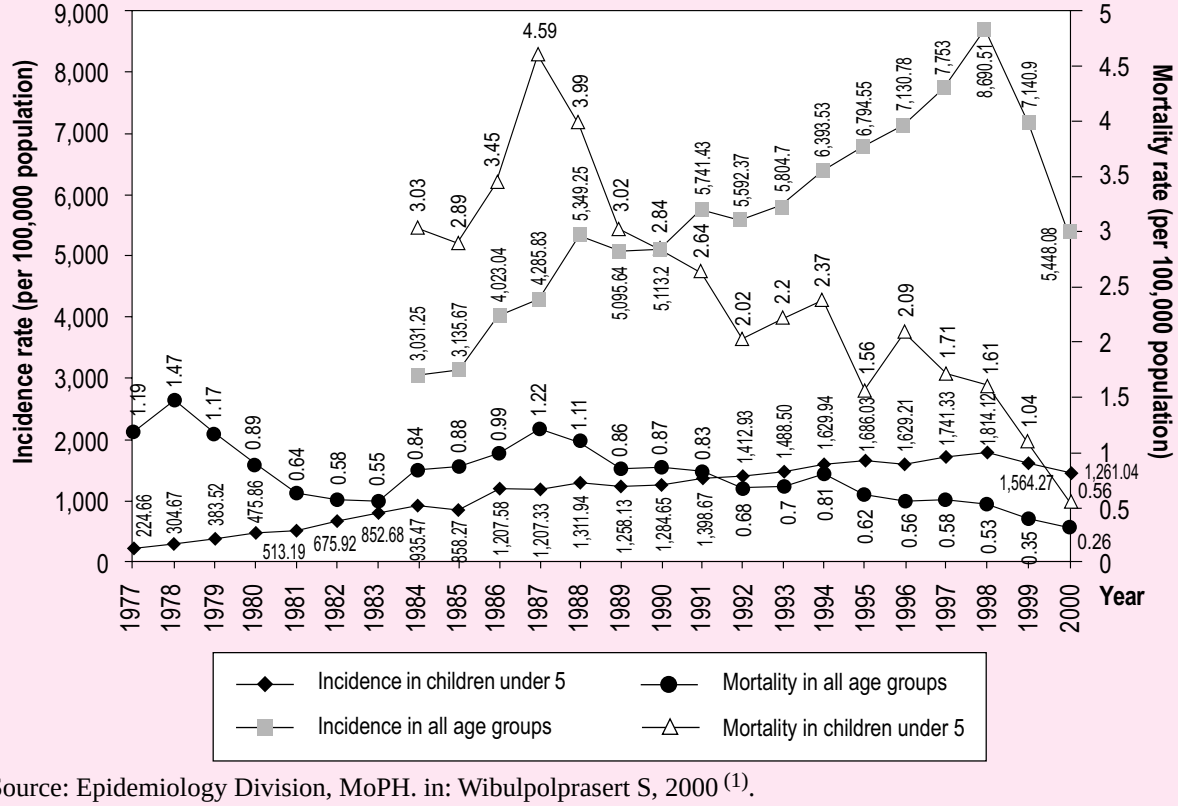
Source: Department of Communicable Disease Control, MoPH. in: Wibulpolprasert S, 2000 [1].

Figure 1.6 Prevalence rate of sexually transmitted diseases and condom use rate in female CSWs in Thailand, 1977-2000.



Source: Department of Communicable Disease Control, MoPH. in: Wibulpolprasert S, 2000 [1].

Figure 1.7 Incidence and mortality rate of diarrhoea in Thailand, 1977-2000.



Source: Epidemiology Division, MoPH. in: Wibulpolprasert S, 2000 [1].

1.2.6 The unsolved health problems

(1) Diarrhoea

Acute diarrhoea is still an important health problem with increasing incidence in both children and adults, but the death rate is declining due to better health services coverage and the practice of oral rehydration therapy (ORT) on a wider scale (Figure 1.7).

(2) Dengue haemorrhagic fever

Dengue haemorrhagic fever has been a major health problem in Thailand for the past 30 years, with no clear declining trends. In 1997-1998 the incidence tended to rise with the incidence of 151.6 and 202.2 and the mortality rate of 0.34 and 0.64 per 100,000 populations, respectively. The problems declined again in 1999 and 2000 with the incidence of 40.4 and 28.5, and the mortality rate of 0.09 and 0.05, respectively.

The reduction of prevalence and mortality rates caused by increasing immunization during the epidemic in 1997-1998.

In 2001, the epidemic of haemorrhagic fever trends to increase. It was found that the prevalence rate during January-March 2001 was three times higher than the rate of the same period in 2000.

(3) Acute respiratory infection in children

Pneumonia is still the number one cause of death, among other infectious diseases, in children under five, with an incidence rate of 2.73 percent in 1997, a drop from 5.2 percent in 1995. Its mortality rate of 15.1 per 100,000 population in 1990 also dropped to 9.05 per 100,000 population in 1997 and 3.74 per 100,000 population in 1999.

1.2.7 Health problems with rising trends [16]

(1) HIV/AIDS

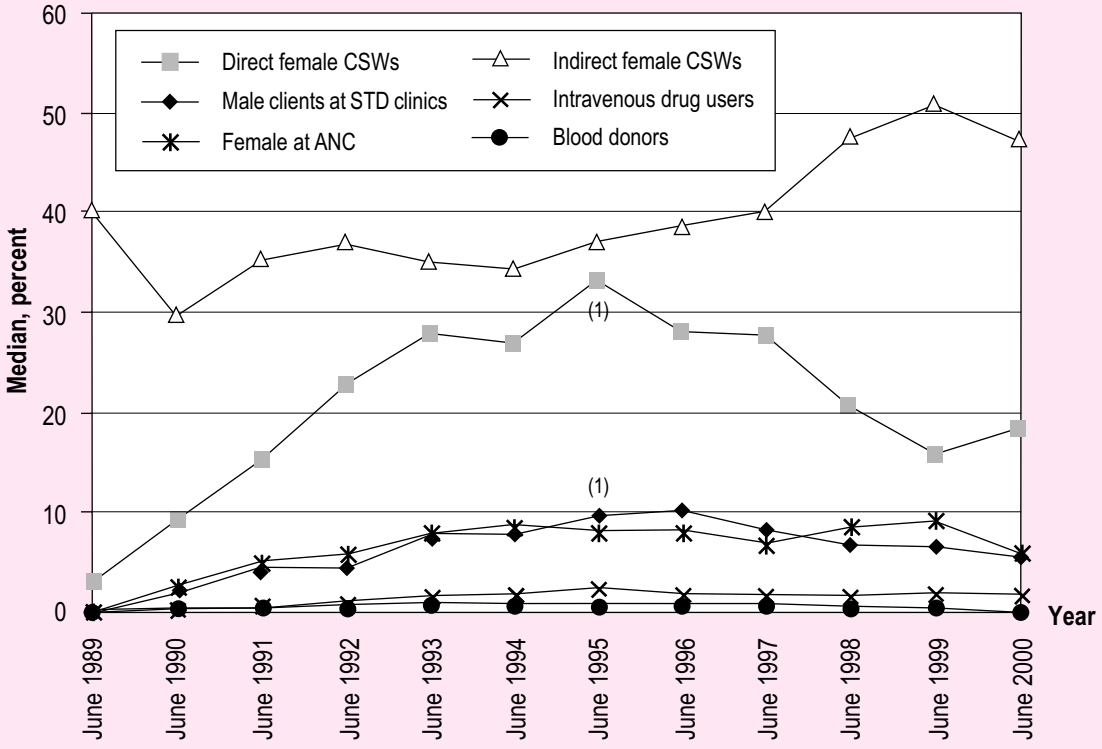
At present, there is an estimated 700,000 HIV-infected people, about 2.0 percent of the adult population. According to the sentinel HIV sero-surveillance program, the percentages of HIV infection in various high-risk groups dropped except for intravenous drug users (Figure 1.8). The prevalence of HIV among the new conscripts which increased from 1.5 percent in 1989 to 3.5-4.0 percent in 1993 had also dropped to 1.4 in 2000.

Although new infections can be reduced, the number of AIDS cases will probably not declined. From 1984, when the first AIDS case was identified in the country, until 1998, there were cumulatively 106,340 AIDS cases and 42,466 symptomatic HIV-infected cases. According to the report on AIDS cases by risk factor, 82.6 percent of the cases contracted the virus through sexual transmission, 5.3 percent through intravenous injections, and 5.03 percent through infected mothers. It is expected that 50,000 HIV/AIDS patients die each year, while 30,000 infected each year.

(2) Tuberculosis

The prevalence of Tuberculosis dropped from 150 per 100,000 population in 1985 to 76 in 1991. However with the increasing trend of the HIV/AIDS, the prevalence has a tendency to rise gradually. This is particulary so in six northern-most

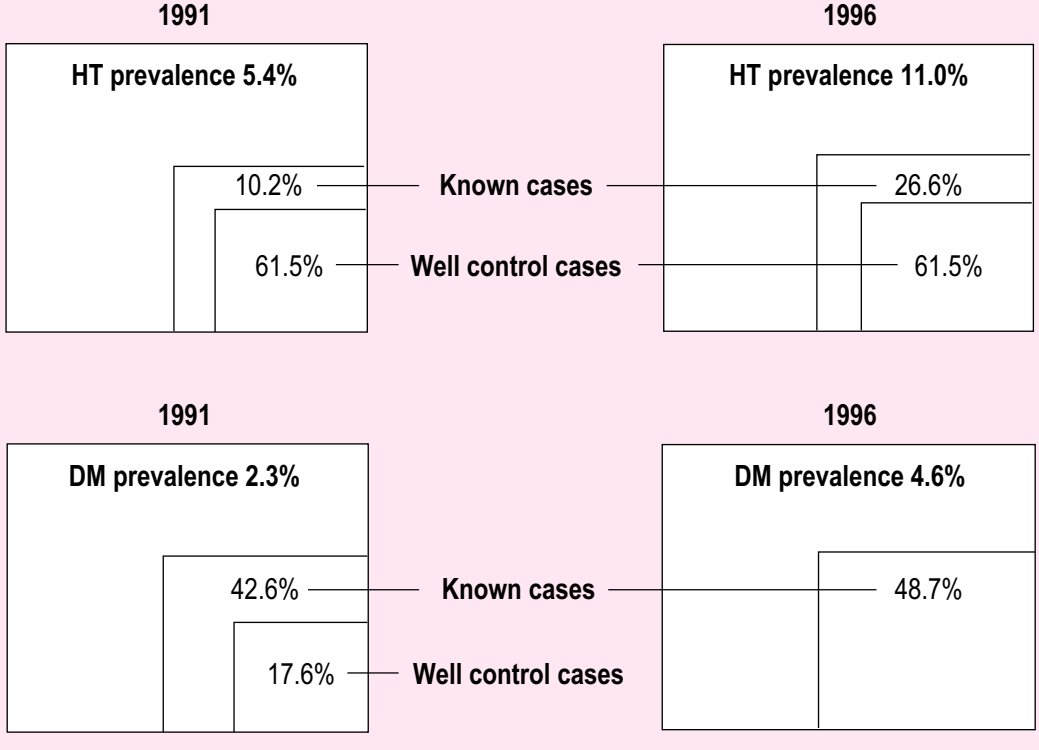
Figure 1.8 Prevalence rate of HIV infection among high-risk groups, 1989-2000.



Note: (1) Data for December 1994.

Source: Epidemiology Division, MoPH. in: Wibulpolprasert S, 2000 (1).

Figure 1.9 DM, HT prevalence and proper treatment, 1991-1996.



Source: National Health Foundation. in: National Health Examination Survey, 1998 (17).

provinces where there is a high prevalence of HIV/AIDS. Consequently Tuberculosis has markedly risen.

(3) Chronic diseases

Currently, chronic diseases, such as heart disease and cancer, have become the leading causes of morbidity and mortality among the Thai people (Figure 1.3). The heart disease prevalence rate (cases per 100,000 population) increased from 56.5 in 1985 to 168.0 in 1997. The cancer prevalence rate (cases per 100,000 population) rose from 53.8 in 1987 to 60.4 in 1997. And the diabetes prevalence also rose from 33.3 (cases per 100,000 population) in 1985 to 147.2 in 1997.

The 1997 Health Examination Survey revealed that out of the approximately 2.0 million diabetics, only half know that they have the disease, and less than half received proper treatment. Out of the approximately 4.0 million hypertensives, only a quarter of them know they have the disease and half of them have received proper treatment (Figure 1.9) [17].

(4) Occupational diseases

The Department of Health's survey on cholinesterase levels in farmers, 1992-1997, showed that 16-21 percent of farmers had abnormal enzyme levels as a result of exposure to pesticides. In industries, an increasing number of workers are faced with occupational diseases as seen by the rising percentage of sick workers under the Social Security System claiming for work related illness from 1.2 percent in 1974 to 3.4 percent in 1998.

(5) Traffic accidents

The rate of injury from traffic accidents increased from 17.45 in 1986 to 85.56 in 1995 and dropped to 75.69 per 100,000 population in 1998. During the same period, the death rate also increased from 3.94 in 1986 to 28.22 in 1995 and dropped to 18.5 per 100,000 population in 1998. This reduction is response to the rate of car selling in Thailand.

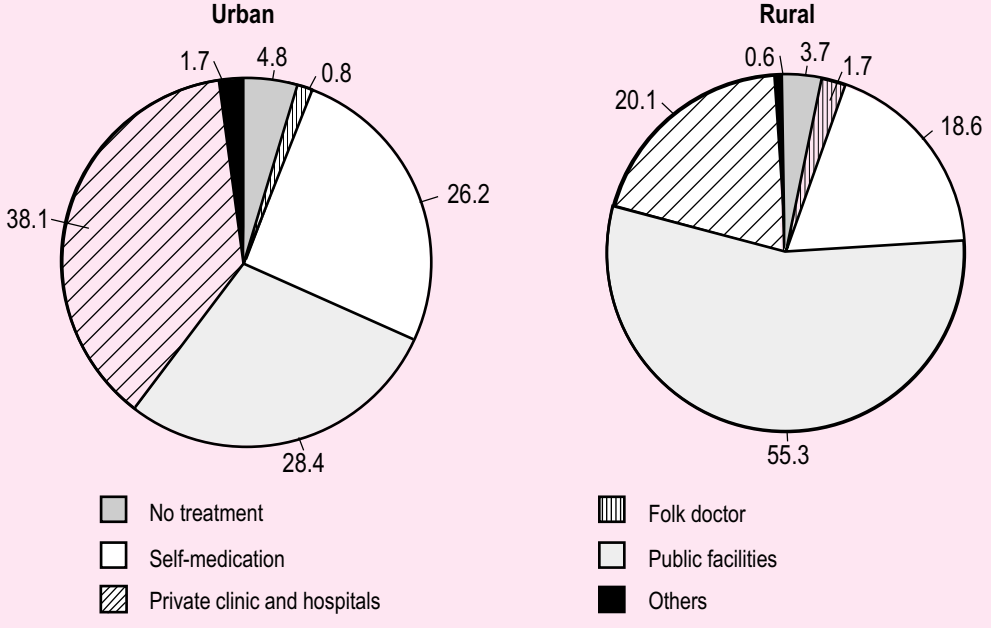
1.3 Health care delivery systems

1.3.1 Health seeking behavior

The health care systems in Thailand has evolved from self-reliance, in the past, using local wisdom for health promotion and curative care, to the current systems which depend on modern medical and health technology. While the public sector is the main service providers, the private for profit and not for profit sector participated actively in the pluralistic health service systems. Meanwhile, many people still depend on the traditional healing methods. With the expansion of modern health care delivery systems both in the public and the private sector, Thais are moving toward using more health facility based services. The percentage of self-care and self medication reduced from 54.1 percent in 1970, to 48.0 percent in 1991, and to 17.62 percent in 1996. During the same period, the use of public health services increased from 15.5 percent to 28.9 and to 44.0 percent, respectively; while the use of private sector services changed from 22.7 percent to 16.1 percent and to 24.3 percent, respectively [18].

The 1999 Health and Welfare Survey [19] found that self care and self medication was 21.2 percent while use of rural health centers was 19.2 percent more or less equal to those who went to private clinics (19.0 percent). The percentage of using district hospitals, provincial hospitals and private hospitals were 14.9, 15.6 and 4.8 percent respectively. People living in urban areas are more likely to use private clinics and hospitals than public facilities, while in rural areas, public facilities are the main source of care. The data from Figure 1.10 shows that 38.1 percent of the urban population use private clinics and hospitals and 28.4 percent use the public facilities as compared to 20.1 and 55.3 percent respectively for rural people.

Figure 1.10 Health seeking behavior by percentage, 1999.



Source: Office of the National Statistics. in: Report of the 1999 household socio-economic survey, 2000 [19].

In 1999, there are 12,548 drug stores that sell self-prescribed medicines. Although dangerous drugs can be sold only by the pharmacists in 5,351 modern pharmacies, they are practically available in almost all drug stores without pharmacists. There are also 400,000 village groceries that sell self-prescribed drugs. Some dangerous drugs are also available in these groceries [20]. It is a custom in Thailand, the same as in most Asian countries, that the clinics and the hospitals also sell drugs to the patients. The income from selling drugs is a major part of the clinic and hospital income. This practice provides incentive to prescribe more drugs. A study in an internal medicine ward of a prestigious medical school found 90 percent of wrong antibiotic prescription [21].

1.3.2 Health facilities

For health personnel manned facilities, the public outnumber the private facilities, particularly in the rural areas (Table 1.1). Most of the rural public facilities are under the central Ministry of Public Health (MoPH).

In regard to facilities for primary care, the 9,704 rural health centers cover all sub-districts, and the 724 community hospitals (10-120 beds) cover all the rural

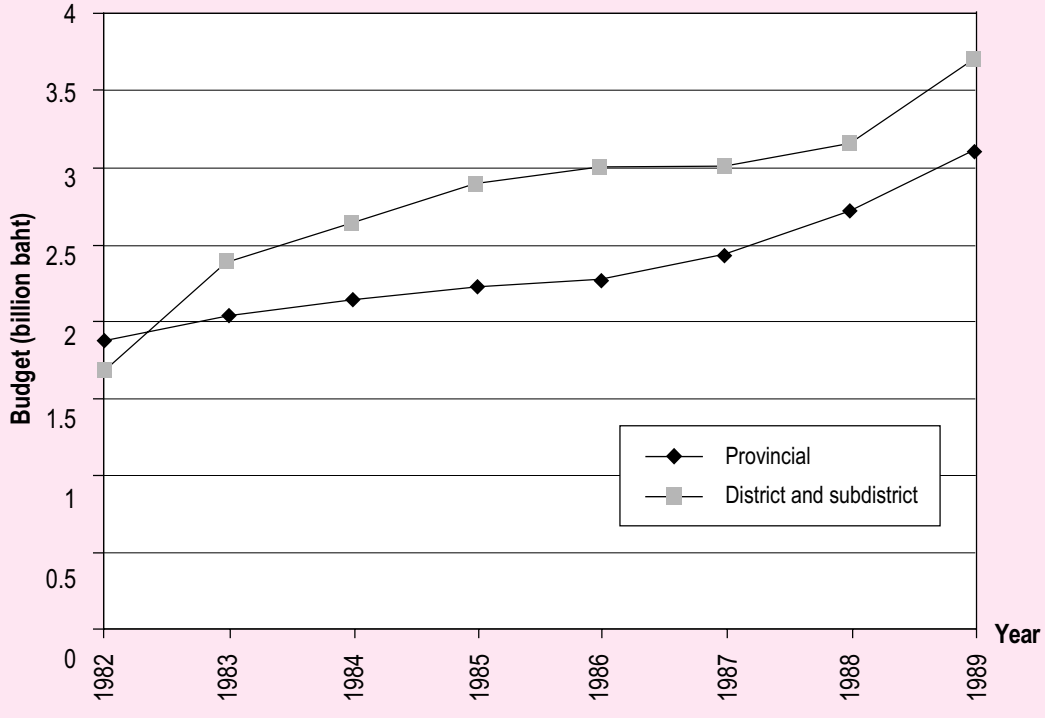
Table 1.1 Health care infrastructures: pleuralistic [22].

	Bangkok	Provinces	Districts	Tambons	Villages
Medical schools	6	5	-	-	-
Specialized hospitals	24	22	-	-	-
General hospitals					
Public	29	92	724	-	-
Private	131	342	-	-	-
Private clinics	3,143	9,063	-	-	-
Health centers	85	-	132	9,704	-
PHC centers	-	-	-	-	63,443
1st class drug stores	2,553	2,797	-	-	-
2nd class drug stores	724	4,409	-	-	-
Groceries	-	-	-	-	400,000

Source: Modified from Na Songkhla M, et al., 1999 [22].

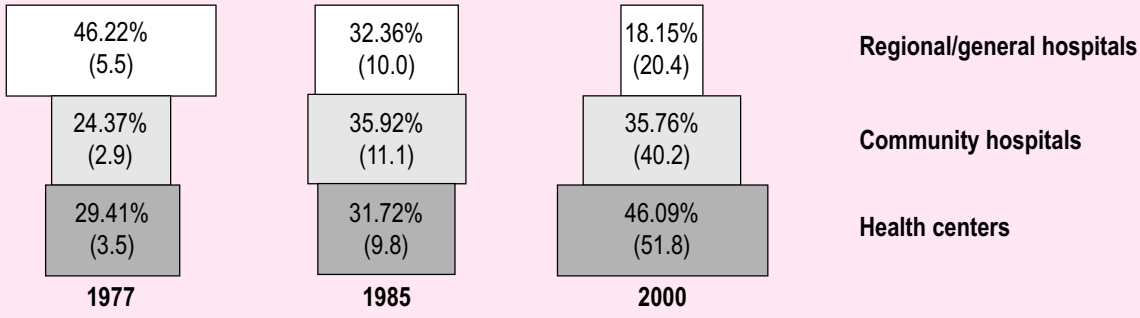
districts. In the municipal areas, there are more than 12,000 private clinics, 132 municipal health centers, and out patient departments of public and private hospitals. All hospitals in Thailand provide primary care services. There were extensive expansion and development of the rural health facilities in the past two decades. Between 1982-1986, in spite of the economic recession, the government decided to freeze the expansion of all urban hospitals so that the budget was reallocated to expand the coverage of rural districts with hospitals and health centers. The budget for the district health services became higher than that of the provincial health services. It remains in that relation until now (Figure 1.11) [23]. This achievement

Figure 1.11 Shift of budget allocation due to the rural development program.



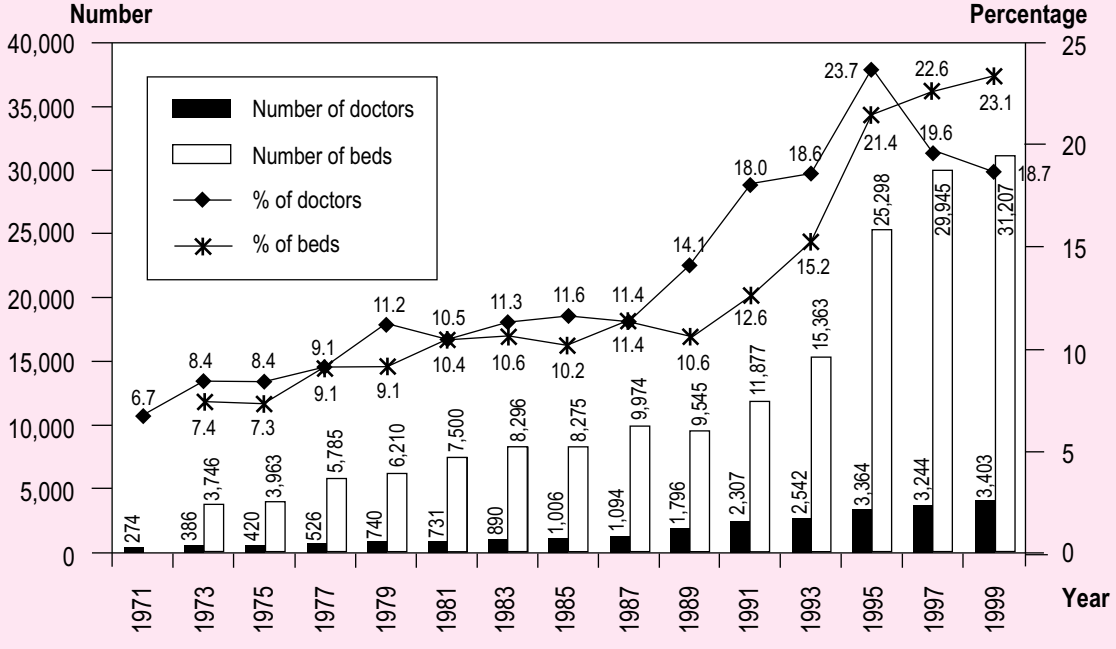
Source: Bureau of Health Policy and Plan, MoPH. in: Wibulpolprasert S, 2000 [1].

Figure 1.12 Shift of the proportion of out patient in rural public health facilities.



Source: Wibulpolprasert S, 2000 [1].
Note: Number in parentheses are outpatients in millions.

Figure 1.13 Number and proportion of private hospitals and beds, 1971-1999.



Source: Wibulpolprasert S, 2000 [1].

resulted in the shift of the out patient services from the provincial hospital to the district hospitals and the rural health centers (Figure 1.12).

In 1997, there were 943 public hospitals with 102,460 beds, and 358 private hospitals with 29,945 beds. Although the proportion of the **number** of private hospitals dropped from 39.2 percent in 1973 to 27.8 percent in 1999, the proportion of its **beds** increased from 7.4 percent to 23.1 percent, respectively (Figure 1.13). It is clear that during the economic boom (1990-1996), increasing private demand and the investment incentive from the government resulted in the rapid increase of large private hospitals, particulary in the capital and the major cities. After the 1997 economic crisis, the Thais moved toward using more public facilities. The number of outpatient visits of private hospitals and clinics dropped by 20-70 percent [24]. Many private hospitals closed down some wards, a few have completely closed down. Some

big private chains have been bought by foreign investors.

In 1999, two important acts were promulgated, i.e., the Public Organization Act and the Decentralization Act. All public universities (including medical schools and their hospitals) will become independent public organizations within 2002. A 120-bed MoPH's hospital has already become independent in October 2000. If this movement proves to be a success, there will be many more public independent hospitals. According to the decentralization act, the majority of the public health service facilities may be devolved to the local authorities within 2010.

1.3.3 Human resources for health

In 1999, there were about 19,956 medical doctors, 59,131 graduate nurses, 6,003 dentists, 10,054 pharmacists, and 30,633 rural health workers. More than 90 percent of human resources were produced from the public institutes. There are 11 medical schools, which only one is private. There are 62 nursing colleges, four of them are private. There are 11 faculties of Pharmacy, only two of them are private. There are six faculties of dentistry, all are public. The cost of education in all public institutes are mostly born by the government from tax revenue. The students usually share less than 10 percent of the cost. There are problems of maldistribution of human resources in terms of geographical distribution as well as specialty (Table 1.2). In 1997, there were 75 percent medical specialists and 25 percent general practitioners. The trend is moving toward more specialists. The problems of geographical maldistribution improved during the period of economic recession (1980-1988), but become worse during the economic boom with rapid expansion of big urban private hospitals (1989-1997) (Figure 1.14). After the economic crisis in 1997, the situation improved again.

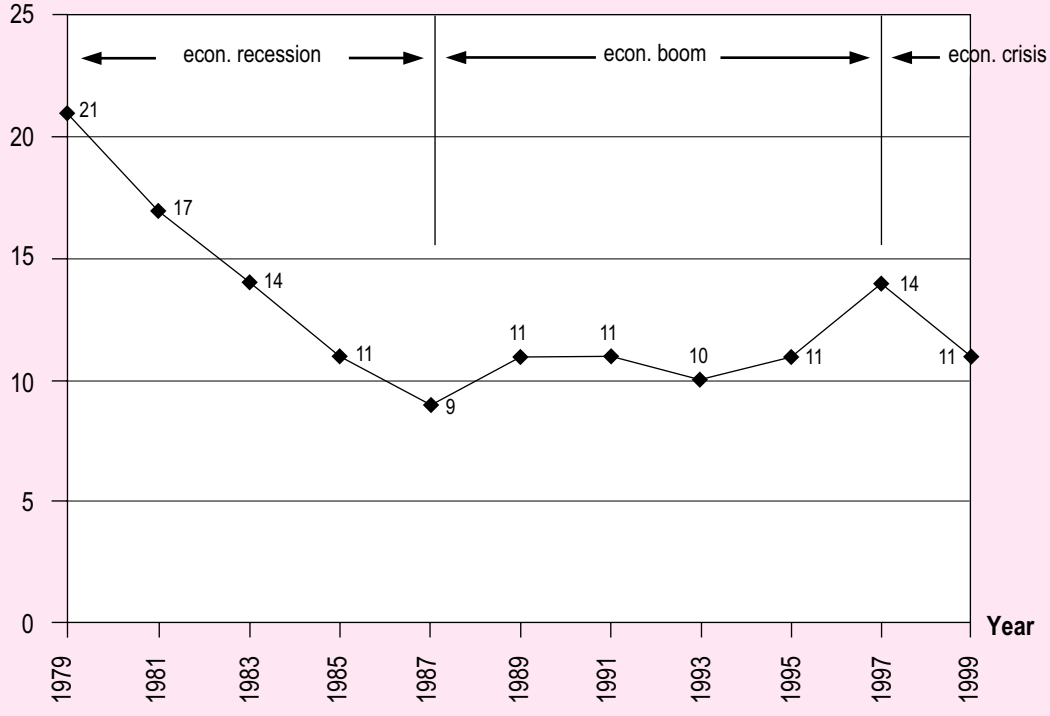
Table 1.2 Distribution of health resources (resource to population ratio) by region, 1999.

Type of resources	Bangkok	Central	North	South	Northeast	Nationwide
Beds	1:199	1:376	1:478	1:509	1:780	1:455
Health centers (1)	1:39,346 (2)	1:3,660	1:4,047	1:4,090	1:5,038	1:4,304
Doctors	1:760	1:3,653	1:4,869	1:4,888	1:8,116	1:3,395
Dentists	1:2,991	1:17,494	1:27,225	1:25,663	1:38,487	1:15,295
Pharmacists	1:2,132	1:11,458	1:16,610	1:13,382	1:25,954	1:10,158
Nurses (all categories)	1:252	1:558	1:676	1:605	1:1,064	1:619
Nurses: professional	1:305	1:855	1:1,022	1:973	1:1,707	1:905
Nurses: technical	1:1,444	1:1,609	1:1,994	1:1,597	1:2,822	1:1,952
Health center staff (3)	-	1:1,055	1:1,293	1:1,205	1:1,691	1:1,342
Pharmacies: modern (1)	1:2,039	1:9,311	1:19,062	1:16,721	1:39,704	1:10,315
Pharmacies: traditional (1)	1:14,209	1:25,239	1:38,063	1:42,018	1:40,999	1:30,820
Pharmacies: modern, readily-packed (1)	1:8,864	1:9,579	1:11,150	1:13,629	1:19,279	1:12,506

Sources: 1. Report on Health Resources Survey, Bureau of Health Policy and Plan, MoPH.
2. Food and Drug Administration, MoPH.
3. Rural Health Division, MoPH.
in Wibulpolprasert S, 2000 (1).

Notes: (1) Data in 2000.
(2) BMA health centers (and branches).

Figure 1.14 The ratio of Northeast's to Bangkok's population/doctor ratios, 1979-1999.



Source: Bureau of Health Policy and Plan, MoPH. in: Wibulpolprasert S, 2000 [1].

Since 1970, there were major problems when many medical graduates went to practice in the USA. On account of that, the government started a system of three years of compulsory public services for the new medical graduates. This system was extended to the pharmacists and dentist in 1990 and 1992, respectively. They become civil servants immediately after graduation. More than two-thirds were sent to the rural areas.

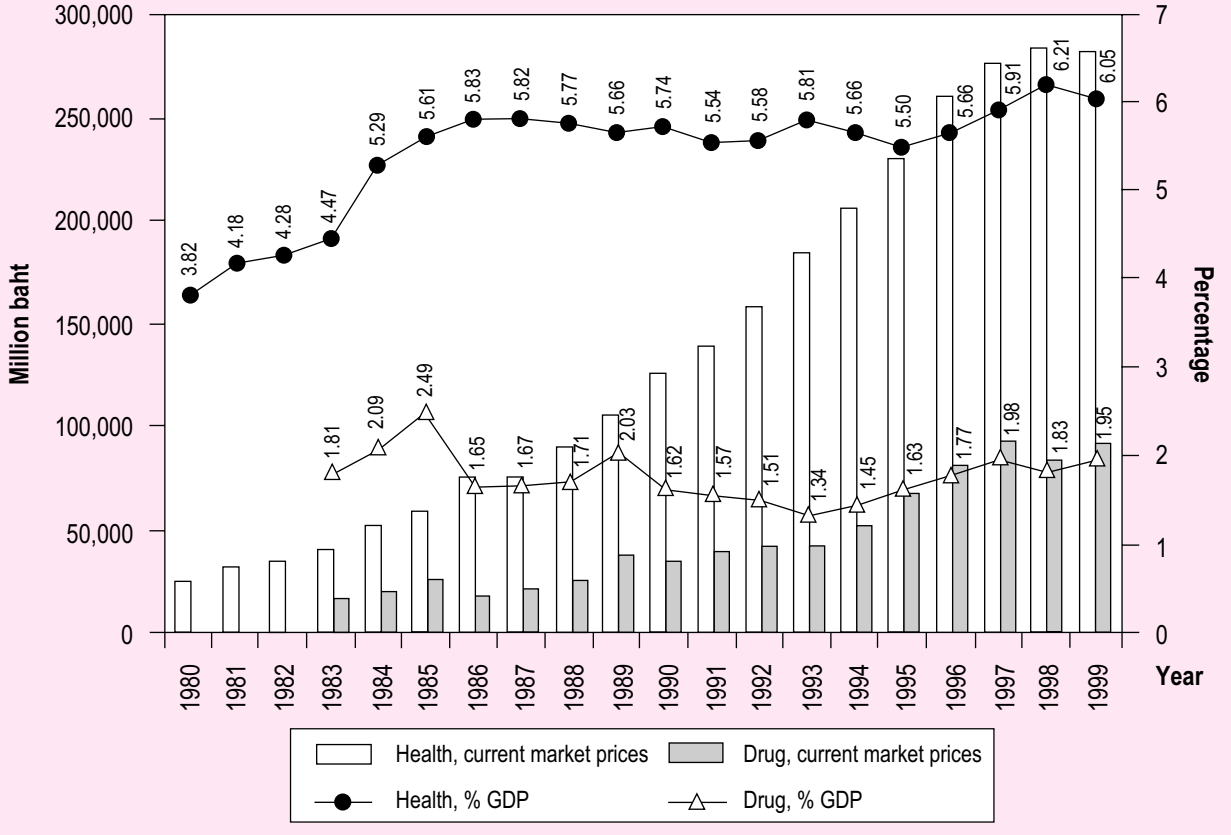
This system contributes to the better distribution of human resources. Some of them, particularly the nurses and the rural health workers and some medical doctors, were recruited from the provinces where they studied and place in their home town hospital after graduation. However, after the economic crisis and the strong policy on public sector reform, these contracted new graduates were hired as 'public employees', not as civil servants as before.

1.3.4 Health care financing [25]

(1) National health expenditure

The national health spending in Thailand had risen significantly during the past decade from Baht 25,315 million in 1980 to Baht 283,576 million in 1998, an 11-fold increase in current price. The per capita health expense had risen nearly 9-fold from Baht 545 to Baht 4,663 during the same period. This is a 9.1 percent per annum increase in real terms, higher than the per capita average annual GDP growth of 7.0 percent. Thus the share of GDP on health increased from 3.82 percent in 1980 to 6.21 percent in 1998 (Figure 1.15). In 1998, the health spending was US$7,089 billion, or per capita expense of US$116 (nominal) or US$380 (ppp.).

Figure 1.15 Expenditure on drugs and health, 1980-1999.



Source: Wibulpolprasert S, 2000 [1].

(2) Who pays and to whom?

(2.1) Public

Public health expense amounted to US$2,463 million in 1998 or 34.74 percent of total health expense. MoPH had the highest share of 66 percent, while 9.5 percent went to the Civil Servant Medical Benefit Scheme (CSMBS) and state enterprise health benefits. The public insurance shared 9.4 percent.

(2.2) Private

Total private health spending in 1998 was US$4,622 million or 65.19 percent of the total health expense. These are mainly household expenses on self medication, and user fees at public and private facilities.

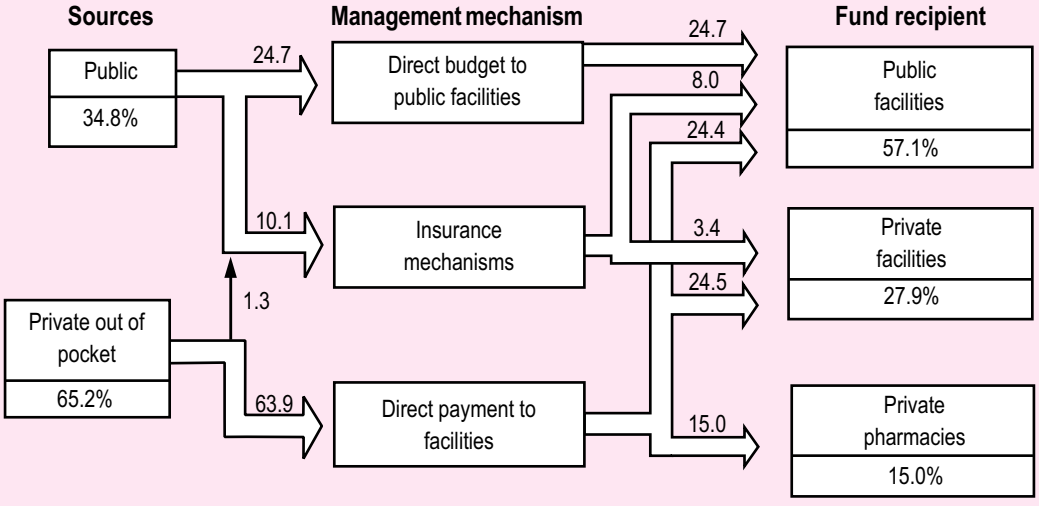
(2.3) Flow of funds

Figure 1.16 shows the approximate scenario of the flow of funds to various providers in 1998.

(3) Equity in health spending

Evidence from the National Socio-economic Survey in 1992, 1994, 1996 and 1998 showed that the poor are paying for health care at a higher percentage of their household income as compared to the rich. However, there was an improved trend. In 1992 the poorest quintile paid 8.17 percent of their income on health, while the richest quintile paid 1.27 percent, a 6.4 fold difference. The figure for 1998 was 4.22 percent and 1.23 percent respectively, a 3.4 fold difference (Figure 1.17). The Index for fairness of financial contribution calculated in the WHR 2000, was 0.913 and

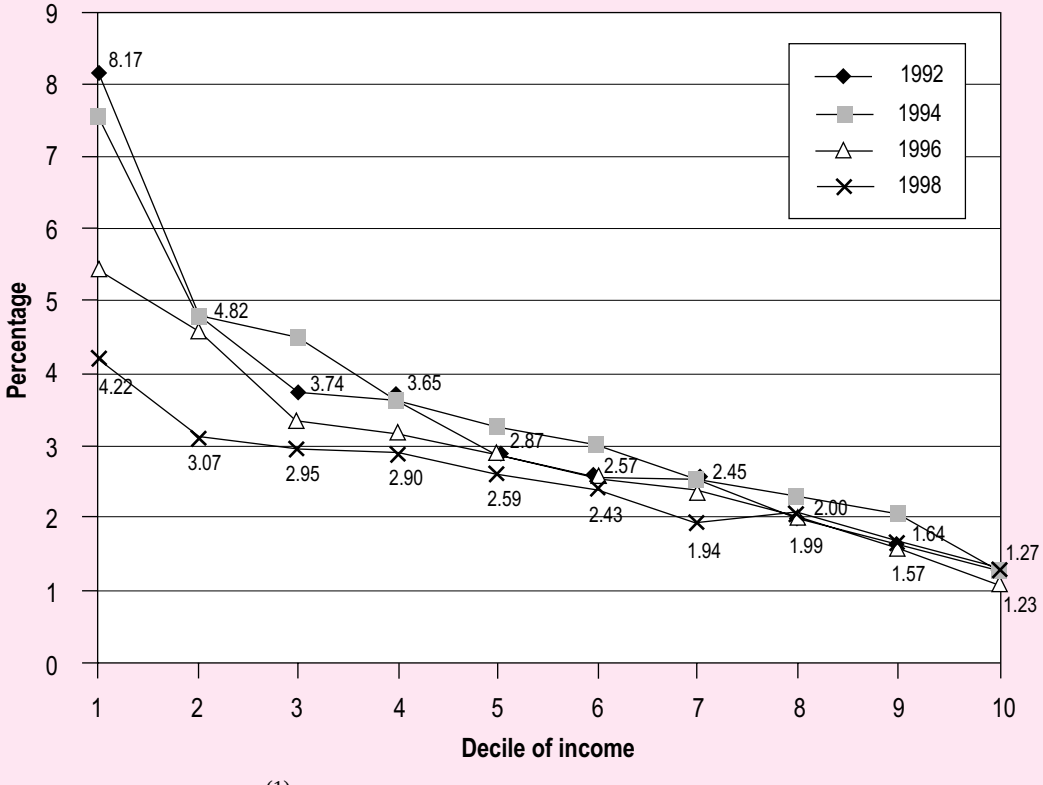
Figure 1.16 Flow of health expenses.



N.B. Many of those who are insured still go to the private pharmacies, private clinics, hospitals, and pay out of pocket or by employers.

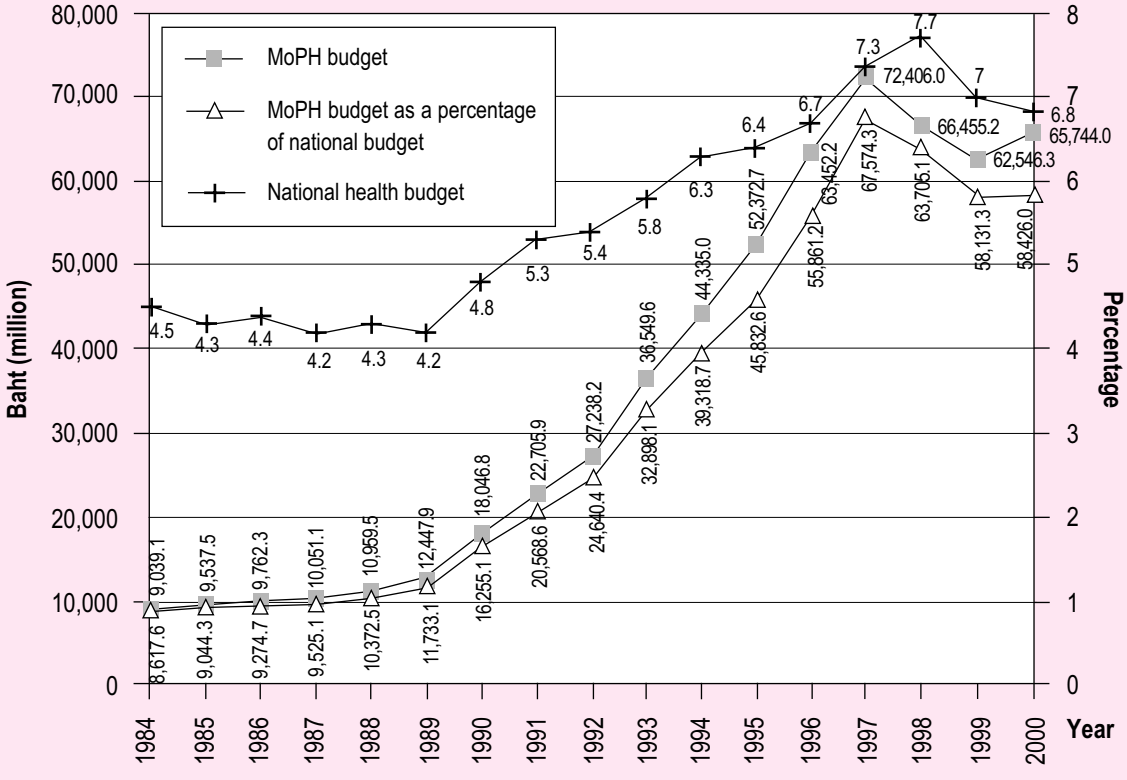
Source: Modified from Na Songkhla M, et al., 1997 [26].

Figure 1.17 Percentage of household health expenditure as compare to their income in 1992,1994, 1996 and 1998.



Source: Wibulpolprasert S, 2000 [1].

Figure 1.18 The national health budget and the MoPH budget, 1984-2000.



Source: Office of the Budget. in: Wibulpolprasert S, 2000 (1).

ranked 128th-130th. The Index for 1998 was 0.958 a much improved situation (27).

(4) MoPH budget

The MoPH budget shares about two-third of the public spending on health (1). Figure 1.18 shows that the percentage of MoPH budget when compared to the total public budget, increased from 3 percent to 7 percent during the past three decades. The rapid increase occurred mainly during the past decade due to the reduction of defense and debt payment budgets. The proportion of capital investment depends greatly on the economic situation, which increased during the economic boom and decreased during the economic crisis (Figure 1.19).

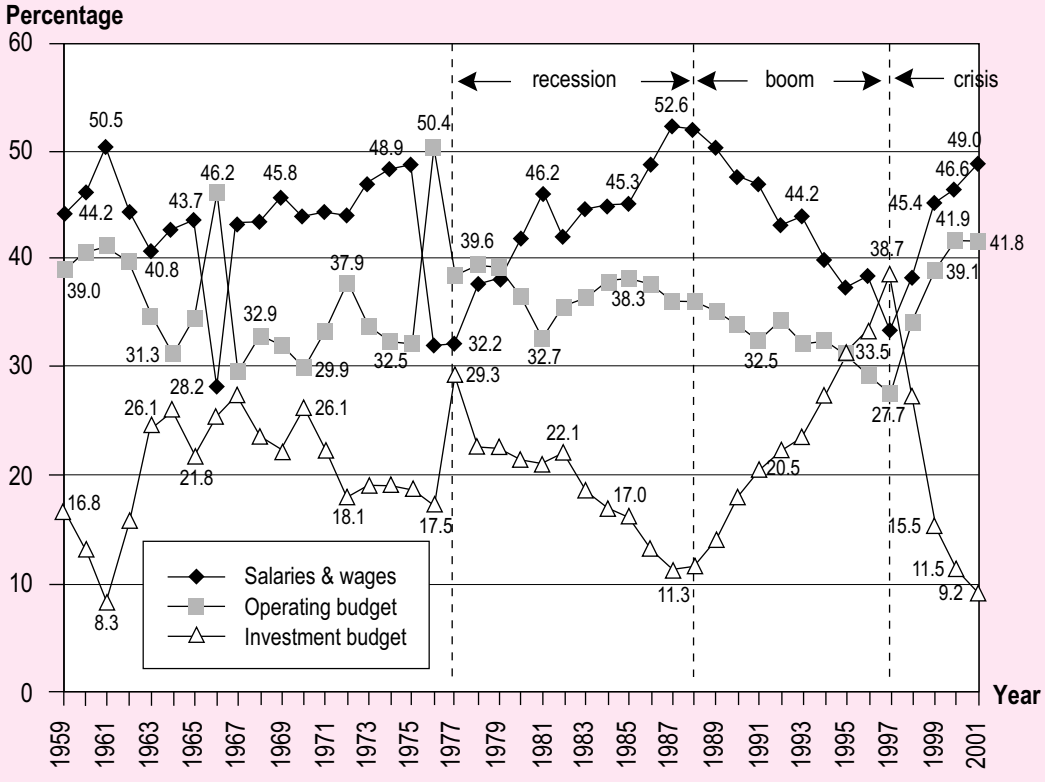
(5) Health insurance

Table 1.3 shows the coverage, expenditure, payment mechanism and health services utilization of several schemes of health insurance in Thailand. Currently 80.3 percent of Thais are insured for health services (certain surveys revealed this figure to be about 60-70 percent). Inequity in per capita expenditure in each scheme is quite evident. Private health insurance has the highest expenditure per capita followed by CSMBS while the workmen's compensation fund is the lowest. The gap between the highest and lowest per capita expenditure is about 10 times.

(6) Pattern of health service utilization in different insurance schemes

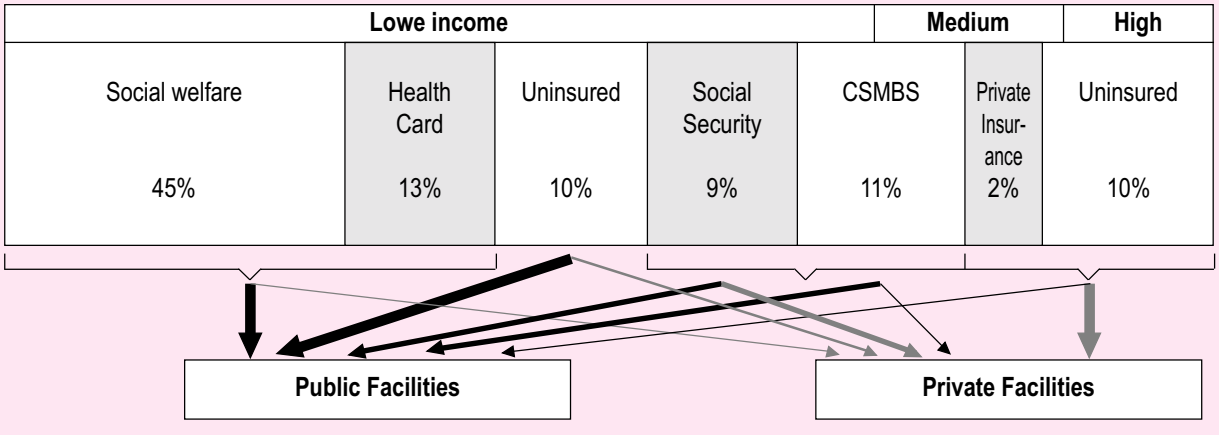
The following picture schematically depicts the most probable use of public and private facilities among the Thais (Figure 1.20).

Figure 1.19 Percentage of MoPH budget by major category of expenditure, 1959-2001.



Source: Bureau of Health Policy and Plan, MoPH. in: Wibulpolprasert S, 2000 [1].

Figure 1.20 Pattern at health service utilization in different.



Source: Modified from Na Songkhla M, et al., 1997 [26].

Table 1.3 Health insurance coverage in Thailand, 1998.

Scheme	Coverage		Expenditure (Baht)			Premium (source of funds)	Payment mechanism	Health service utilization	Drug user
	Pop. (million)	Percent	Billion	% NHE	Per cap. (US$)				
Social welfare	27.5	45.1	18.3	6.5	667 [2] (17)	Tax	Global budget	Assigned public+referral	ED [5]
CSMBS (Civil servants)	6.6	10.8	16.4	5.8	2,491 (62)	Tax	Fee-for-service	Public	ED
Social security	5.2	8.5	7.6	2.7	1,468 (37)	4.5% payroll [3]	Prepaid capitation	Public & private	ED
Voluntary public health insurance (Health card)	8.5	13.9	6.4	2.3	750 [2] (19)	500฿/family +Tax (1,000)	Global budget based on OP&IP	Assigned public+referral	ED
Voluntary private health insurance	1.2	2.0	3.6	1.3	3,000 (75)	Varied	Fee-for-service	Public & private	No limit
Workmen's comp. fund	5.2	8.5	1.6	0.6	308 (7.7)	0.2-3.0% payroll [4]	Fee-for-service	Public & private	
Car accident	61.0	100.0	1.5	0.5	-	Private	Fee-for-service	Public & private	
Total	**49.0** [1]	**80.3** [1]	**55.4**	**19.7**	**1,067** [1]	-	-	-	-

NB. (1) Excluding Workmen's Compensation Fund and motor vehicle accident insurance.
(2) Cross-subsidization added.
(3) 1.5% of payroll each from employers, employees, and government.
(4) Rate according to past history of claims.
(5) ED = Essential Drugs
1 US$ = 40 Baht
Source: Modified from Na Songkhla M, et al., 1997 [26].

Low income rural people as well as the urban poor, mainly use public facilities while higher income rural and urban dwellers mainly use private facilities.

1.4 Problems of the Thai health care systems [28]

Major problems in the health systems in Thailand are divided into five groups as follows:

1.4.1 Inequity

(1) Inequities of health status

The infant mortality rate (IMR) is a good indicator of health status differences in various population groups, i.e., the IMR in non-municipal areas being 1.85 times higher than that in the municipal areas. Although the IMR has declined by half in the past 20 years, the urban-rural difference is increasing (Table 1.4). In the World Health Report 2000, Thailand was ranked 74th in the area of equity in health status as measured by the distribution of child mortality [5].

(2) Inequities in resources allocation

Although the proportions of bed to population and personnel to population tend to be better in all regions and nationwide, the Bangkok/regional and Bangkok/Northeast disparities prevail. This clearly indicates the inequities in resources allo-

Table 1.4 Infant mortality rate (per 1,000 live births) in municipal and non-municipal areas, 1964-1996.

Survey/Period	National average	Municipal areas	Non-municipa areas	Non-mun./Mun. difference
SPC 1 (1964-1965)	84.3	67.6	85.5	1.26
SPC 2 (1974-1976)	51.8	39.6	58.7	1.48
SPC 3 (1985-1986)	40.7	27.6	42.6	1.54
SPC 4 (1989)	38.8	23.6	41.4	1.75
SPC 5 (1991)	34.5	21.0	37.0	1.76
SPC 6 (1995-1996)	26.05	15.24	28.23	1.85

Sources: Survey of Population Changes (SPC), Office of the National Statistics. in: Wibulpolprasert S, 2000 [1].

cation. In Bangkok, the bed/population ratio is 1:199 and the doctor/population ratio is 1:760, compared to the national average of 1:455 and 1:3,395, respectively; and in the Northeast such ratios are 1:780 and 1:8,116, respectively (Table 1.2).

Inequities in health care are also found in terms of the diffusion of medical and health technologies. For instance, in the case of CT scanner distribution for every one million population, in Bangkok there are 14.8 CT scanners, while there are only 2.8 machines in the provincial areas, 1.8 machines in the Northeast, and 3.9 machines nationwide.

For regional comparison, if an index of one is assigned for the lowest CT-scanner to population ratio in the Northeast, the discrepancy index in Bangkok would be 8.6. In other words, the gap of discrepancy index in Bangkok is 8.6-fold in relation to that in the Northeast. The nationwide index is 2.3. Such indices have shown inequalities of medical technology diffusion (Table 1.5), which tend to be improving.

Table 1.5 Number and ratio of CT scanners to 1,000,000 population and discrepancy index by region, 1994 and 1998.

Region	No. of CT scanners		Population (millions)		Ratio of CT scanners to 1 million population		Discrepancy index	
	1994	1998	1994	1998	1994	1998	1994	1998
Bangkok	88	83	5.6	5.6	15.7	14.8	12.1	8.6
Regions (outside BKK)	117	156	53.1	55.5	2.2	2.8	1.7	1.6
Central	45	66	13.4	14.2	3.3	4.6	2.7	2.7
North	31	37	11.9	12.1	2.6	3.1	2.0	1.8
Northeast	26	36	20.3	21.2	1.3	1.8	1.0	1.0
South	15	17	7.5	8.0	2.0	2.1	1.5	1.2
Nationwide	**205**	**239**	**58.7**	**61.1**	**3.5**	**3.9**	**2.7**	**2.3**

Sources: Tangcharoensathien V, et al., 1995, Diffusion of Medical Equipment in Thailand. in: Wibulpolprasert S, 2000 [1].
For 1998, the data are obtained from the Radiation Protection Division, Department of Medical Sciences.

(3) Inequities in taking the burden of health expenditure

The poor have had a greater burden of health expenditure in proportion to income than the rich (Figure 1.17).

1.4.2 Problems of efficiency of the health services system

(1) Problems of health services efficiency

Curative care is much less efficient with regard to its capacity in making people healthy, compared to promotive and preventive care. Besides, for the curative service system itself, inefficiency is found in terms of, for example, drug overutilization (from the community level up to the medical specialist level), irrational technological use, and wasteful spending. Around 55 percent of the public health budget was spent on curative services, 19 percent was spent on health promotion and 12 percent on disease prevention [29].

(2) Problems of investment in hospital beds

According to the 1995-1999 reports on health resources surveys conducted by the Bureau of Health Policy and Plan, MoPH hospitals have a bed-occupancy rate of 83 percent, compared with the rate of less than 40 percent at for-profit private hospitals. This clearly indicates an oversupply of beds in the private sector (Table 1.6).

1.4.3 Problems of the quality of service systems and service standards

In the public and private sectors, the problems are different in terms of the quality and standards of services which do not meet consumers' expectations. This is due to a lack of systems for quality inspection/assurance and service accreditation. The provisions of the Medical Facilities Act are outdated. The holistic care system for emergencies is inefficient. The issues most complained about are personnel's manner and rapidity in service delivery. The problems are slightly more serious in the public sector than in the private sector. The problems specific to the public sector include patient's inconvenience and discrimination, while those in the private sector are related to prices, skills and morality (Table 1.7).

Table 1.6 Number of beds and bed-occupancy rates at health facilities of various agencies nationwide in 1995-1999.

Agency	No. of beds					No. of patient's bed-days					Patient/bed ratio					Bed-occupancy rate (%)				
	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999
MoPH	73,191	76,379	79,818	81,035	82,085	4.8	4.6	4.6	4.3	4.3	62.6	67.5	66.6	72.4	70.1	83.6	85.9	83.5	84.3	82.8
Other Ministries	14,236	17,143	16,880	15,948	15,879	5.5	8.2	6.4	7.6	6.7	18.3	19.9	24.9	31.0	30.5	27.6	44.7	43.6	64.7	55.6
Ministry of Interior	3,359	3,417	3,402	3,457	3,591	9.7	8.5	8.1	4.3	4.6	23.0	31.5	32.6	60.5	58.0	61.2	73.5	72.5	71.7	73.7
State enterprises	365	365	365	385	385	10.9	9.1	9.3	12.9	6.4	14.3	19.0	18.6	23.8	15.6	43.2	47.3	47.3	84.7	27.3
Private sector: for profit	25,298	29,611	29,945	31,123	31,107	4.0	4.8	3.1	3.0	3.1	38.3	54.9	52.8	52.1	47.4	42.3	46.2	44.3	42.9	39.9
Private sector: non profit	1,968	2,004	1,995	2,156	2,156	7.3	6.9	6.6	6.8	6.0	34.6	34.7	36.5	34.9	35.2	69.4	66.1	66.1	65.3	57.7
Total	**118,417**	**128,919**	**132,405**	**134,104**	**135,303**	**4.8**	**4.9**	**4.4**	**4.2**	**4.3**	**50.4**	**50.7**	**56.7**	**61.7**	**59.2**	**67.1**	**70.6**	**68.9**	**71.7**	**68.9**

Source: Report on Health Resources Survey, Bureau of Health Policy and Plan, MoPH. in: Wibulpolprasert S, 2000 [(1)].

Table 1.7 Dissatisfaction of clients at public and private hospitals.

Issue dissatisfied with	In public hospitals		In private hospitals	
	No.	Percent	No.	Percent
Manner	230	68.7	62	40.5
Prices	7	2.1	29	18.9
Rapidity	150	44.8	52	34.0
Skills	23	6.9	40	26.1
Convenience	35	10.4	9	5.9
Explanation	23	6.9	7	4.6
Equipment	3	0.9	1	0.7
Morality	4	1.2	12	7.8
Discrimination	23	6.9	1	0.6
Management	56	16.7	25	16.3
Others	24	7.2	17	11.1
Total	**335**		**153**	

Source: Bennett S, Tangcharoensathien V, 1994. in: Wibulpolprasert S, 2000 [1].

At present, efforts have been made by the Health Systems Research Institute to establish and coordinate a hospital accreditation program, with participation from both public and private sectors. It is expected that in the near future, Thailand will have a well established hospital accreditation mechanism.

1.4.4 Problems of accessibility to emergency services

Despite the expansion of health services in both public and private sector, a number of people are still faced with the problem of medical care in an emergency situation, from the site of accident to the hospital. There has been no systematically organized mechanism for handling such an incident. Emergency rooms in most hospitals are manned by less experienced young staff. It has been found that some hospitals in Bangkok refuse to admit an accident victim because they claim that there is no inpatient bed available at that moment. Some doctors do not attend to patient on a timely basis, and some private hospitals do not provide basic care for the patients who cannot afford to pay for services.

After the enactment of the 1995 third-party insurance law, the problems of medical emergency cases have been minimized as there is definitely a party responsible for medical expenses (within the 50,000-baht limit). But it has been found that most private hospitals tend to send the patient who has exhausted the 50,000 baht to a public hospital to take the extra burden.

1.4.5 Coverage of health insurance

The trends of health insurance in Thailand are rising to cover all the people under such schemes as the revolving fund for medical services, voluntary health insurance, social security, students health insurance, workmen's compensation fund, and insurance for road traffic accident victims. As of 1998, approximately 80.3 percent of the Thai people have been covered by health insurance of one scheme or another (Table 1.8). The current government has announced a policy to achieve universal health insurance within 2002. This policy will definitely affect the health care structure and financing system.

Table 1.8 Percentage of health insurance coverage by scheme, 1991-2000.

Health insurance scheme	Coverage, percent						
	1991	1992	1995	1997	1998	1999	2000
1. Medical care for the poor and the socially supported (underprivileged) groups	16.6	35.9	43.9	44.7	45.1	42.1	40.8
● The poor	16.3	20.7	15.5	13.4	13.5	10.5	10.6
● The elderly	-	6.2	4.6	4.9	5.5	6.4	6.4
● Children aged 0-5	-	-	7.1	7.3	7.3	} 20.1	} 17.2
● Primary and secondary schoolchildren	-	9.0	8.9	11.1	11.1		
● War veterans	0.3	-	0.4	0.3	0.3	0.2	0.3
● Community leaders and schoolchildren	-	-	5.0	5.4	5.4	4.4	5.8
● The disabled	-	-	1.8	1.8	1.5	0.3	0.3
● Buddhist monks and novices	-	-	0.6	0.5	0.5	0.2	0.2
2. Medical services for civil servants and state enterprise employees	10.2	11.3	11.0	10.8	10.8	10.8	12.0
● Civil servants and family members	8.7	9.9	9.6	9.4	9.4	9.4	-
● State enterprise employees and family members	1.5	1.4	1.4	1.4	1.4	1.4	-
3. Compulsory health insurance	3.2	4.4	7.3	7.6	8.5	9.2	9.4
● Social security fund/Workmen's compensation fund	3.2	4.4	7.3	7.6	8.5	9.2	9.4
4. Voluntary health insurance	2.9	3.9	9.8	15.3	15.9	15.8	17.5
● MoPH health insurance	1.7	2.3	7.8	13.3	13.9	13.8	14.2
● Private health insurance	1.2	1.6	2.0	2.0	2.0	2.0	3.3
Total: people with health insurance	32.9	55.5	72.0	78.4	80.3	77.9	79.7
Total: people without health insurance	67.1	45.5	28.0	21.6	19.7	22.1	20.3

Source: 1. For 1991, a survey conducted by the Office of the National Statistics, 1991.
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CHAPTER 2

Overview of Health Insurance Systems

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2.1 Introduction

The policy of charging for drugs and medical services in public health facilities was established in the Thai health systems in 1945. An informal exemption mechanism for the poor, at the discretion of the health worker, was implemented along with user charges. Informal exemption has gradually evolved into a systematic mean-testing scheme based on household income. A Low Income Card was issued every three years since 1981 for households below a defined poverty line.

Government employees and retirees and their dependents including parents, spouse and not more than three children (less than 20 years old) are generously provided with medical care coverage. An employer liability Workmen's Compensation Scheme for work related illness, injury and death compensation was the foundation for the recent development of tripartite Social Insurance for formal sector private employees for non-work related illnesses, maternity, disability and death compensation. Finally, a voluntary community based health insurance scheme has now developed into a publicly subsidized voluntary Health Card Scheme. Voluntary private insurance has long existed in Thailand, providing coverage to the better-off groups.

Various social and health protection schemes developed at different paces resulting in variations in terms of benefit packages, provider payment methods, financing sources, level of government subsidy, efficiency and quality of care. However, by 1996, 30 percent of the population were still uninsured [(1)] (the number of uninsured varies due to different estimation methods). Current policy discussions focus on efficiency improvement, reduction of inequity within the insured population, and the extension of insurance coverage to the entire population.

This chapter provides an overview of insurance systems in Thailand, describing its principle, objective, trends of coverage, key characteristics and weaknesses. Characteristics of the uninsured will be highlighted. Based on these analyses, recommendation on reform was proposed to achieve greater efficiency, equity and universal coverage.

2.2 Overview of the health insurance schemes

Health insurance provides two basic functions: access to effective health care services when needed, and effective protection of family income and assets from the financial costs of expensive medical care [2]. Tax-based welfare schemes are also considered health insurance. Supachutikul [3] classified various health insurance schemes in Thailand into four categories accordingly to their nature and objectives.

2.2.1 Medical Welfare Scheme (MWS)

This scheme provided free medical care for the indigence for example the poor, the elderly and children up to secondary school and the disabled. It also extends to monks, community leaders, health volunteers and their family.

2.2.2 Civil Servant Medical Benefit Scheme (CSMBS)

This is a fringe benefit to government employees and dependents to compensate low public salary.

2.2.3 Compulsory Social Insurance

- Social Security Scheme (SSS) - a tripartite contribution scheme by the employer, the employee and the government ensures health security for formal sector employees.
- Workmen Compensation Scheme (WCS) - an employer liability scheme to protect the employee from work-related injuries, illnesses and funeral grants.
- Traffic Accident Insurance - ensures access to care by traffic accident victims through compulsory premium paid by all car owners to private insurance firms [4].

2.2.4 Voluntary Schemes

- Private Health Insurance - a voluntary risk related premium contribution covers mainly the better off [5].
- Government Health Card Scheme (HCS) - a voluntary alternative for the uninsured, e.g. rural informal sector workers who are not eligible for low income scheme, the self-employed and employee in small firms of less than 10 employees who are not eligible for the social insurance scheme [6].

Several small scale community financing, saving schemes provide limited health benefits to its members. Payments are made retrospectively to members at the end of the year according to the funds available. Self-help funeral grants are more common than health benefits. The chronological events of various scheme developments are summarized in Table 2.1, showing a wide gap of discrepancies.

Table 2.1 Chronological events of the health insurance development in Thailand.

Year	Important event	SW	FB	CI	VI
1929	Private insurance business				✓
1954	First Social Security Act (but not implemented)			✓	
1974	Workmen Compensation Fund			✓	
1975	Free medical care for the Poor	✓			
1978	First private health insurance company				✓
1980	Royal Decree on CSMBS		✓		
1981	First issuance of Low Income Card	✓			
1983	Maternal and Child Health Fund (phase I)				✓
1984	Health Card Project (phase II)				✓
1990	Social Security Act covered enterprises with 20 and more employee			✓	
1991	Health Card Project - insurance based pilot (phase III)				✓
1992	Free medical care for elderly	✓			
1993	Traffic Accident Victim Protection Insurance			✓	
1994	Social Security Act, extension to enterprises with 10 or more employee			✓	
1994	Health Card Scheme (phase IV), equal matching fund provided by government, reinsurance policy and cross-boundary card				✓
1994	Health Card extension to community leader and health volunteer, full government subsidy		✓		
1994	Medical Welfare Scheme, expansion of the free medical care for the poor to cover other indigent groups, elderly and children up to 12 years	✓			
1998	New financial regulation for the Medical Welfare Scheme: management by national and provincial committees, per capita budget allocation to provinces, introduce reinsurance policy for high cost care by using Diagnostic Related Groups and global budget.	✓			
1998	CSMBS: introducing copayments by CSMBS beneficiaries, only drugs quoted as essential drugs are reimbursed, limited hospital stays in private room and board.		✓		
2000	The Social Security Scheme expanding to cover old age pension and child benefits			✓	

Source: Adapted from Supachutikul A, 1995 [3].

SW = Social Welfare FB = Fringe Benefit CI = Compulsary Insurance VI = Voluntary Insurance

2.3 Trend of coverage

The Health and Welfare Survey conducted by the Office of the National Statistics [1, 7, 8] showed an increasing trend of insurance coverage from 33.5 percent in 1991 to 60 percent in 1999. When adjusted for coverage by children under 12 and the elderly, the insured figures were higher (Table 2.2).

Rapid MWS expansion was due to extension to the elderly and children under 12. This accounts for 71 percent of the total increase in coverage during 1991-1995. Expansion of the Health Card Scheme was in its fourth phase (1993-1998) due to extensive TV and radio advertising and sales promotion campaigns. This could pave the way towards universal coverage. During the 1997 economic crisis, the demand for health cards increased significantly among the uninsured who could not afford out of pocket for health care and the laid off social security workers who also lost social security protection.

Table 2.2 Percent population coverage and trends, 1991, 1996 and 1999.

Schemes	1991	1996	1999	1996*	1999*
1. Medical Welfare Schemes	12.7	12.3	12.4	29.5	22.5 (32.1)
2. Government employee scheme					
● CSMBS	13.2	11.3	7.8	11.3	7.8
● State enterprise	2.1	1.4	1.1	1.4	1.1
3. Social Security including WCS and employer welfare	0	5.5	7.1	5.5	7.1
4. Voluntary insurance					
● Voluntary Health Card	1.4	13.2	28.2	13.2	28.2 (18.6)
● Private insurance	3.1	1.2	1.4	1.2	1.4
5. Others	0.9	1.1	1.7	1.1	1.7
Insured	***33.5***	***46***	***59.8***	***63.2***	***69.9***
Uninsured	***66.5***	***54***	***40.2***	***36.8***	***30.1***
Total	100	100	100	100	100

Source: Office of the National Statistics, Health and Welfare Survey 1991, 1996, and 1999 [1, 7, 8].

* Adjusted figure of NSO by including children and the elderly who reported as uninsured in the Medical Welfare Scheme. Figure in parenthesis shows the coverage when removing all children and elderly to the MWS.

2.4 The uninsured characteristics

In this part, we describe characteristics of the uninsured at great length using the MoPH provincial health survey [9]. In 1996, between 26 percent and 31 percent of households in each income bracket were uninsured; 28 percent of the poorest households (monthly income less than 2,000 Baht), who should have been covered by MWS, but were actually not insured [9]. Among the 16,659 uninsured persons sampled by the survey, 27 percent were in the lowest monthly income bracket of less than 2,000 Baht (Table 2.3).

Table 2.3 Household monthly income for insured and uninsured, 1996.

Monthly	Uninsured		Insured		Total		% uninsured
income (Baht)	Number	%	Number	%	Number	%	
1. ≤ 2,000	4,451	27	11,672	32	16,123	30	28
2. 2,001-8,000	9,847	59	18,446	51	28,293	53	35
3. 8,001-15,000	1,333	8	3,693	10	5,026	9	27
4. 15,001-20,000	197	1	565	2	762	1	26
5. 20,001 +	340	2	859	2	1,199	2	28
6. unknown	491	3	1,093	3	1,584	3	31
Total	16,659	100	36,328	100	52,987	100	31

Source: Ministry of Public Health, 1997 [9].

Among the 16,659 uninsured persons, 80 percent of heads of households had a primary school education (Table 2.4). Only 13 percent of university graduate household heads were uninsured, compared to 33 percent of primary school educated. Table 2.5 gives a breakdown of the uninsured population by occupation of the household heads. Farmers took the greatest share of the total uninsured. Civil servants were least likely to be uninsured (5 percent), whereas transport operators and traders had

Table 2.4 Education level of head of household for insured and uninsured, 1996.

Education of household head	Uninsured		Insured		Total		% uninsured
	Number	%	Number	%	Number	%	
1. Primary level	13,332	80	27,336	75	40,668	77	33
2. Secondary level	1,644	10	3,666	10	5,310	10	31
3. Vocation	403	2	1,324	4	1,727	3	23
4. University	203	1	1,301	4	1,504	3	13
5. Uneducated	958	6	2,415	7	3,373	6	28
6. Unknown	119	1	196	1	315	1	38
Total	16,659	100	36,238	100	52,897	100	31

Source: Ministry of Public Health, 1997 [9].

Table 2.5 Occupation of head of household for uninsured and insured, 1996.

Occupation	Uninsured		Insured		% of workforce uninsured
	Number	% of uninsured	Number	% of insured	
1. Farmer	7,896	49	18,654	51	30
2. Civil servant	198	1	3,658	10	5
3. Transport operator	564	3	716	2	44
4. Worker	904	6	2,000	6	31
5. Traders	2,849	18	3,632	10	44
6. Other	3,063	19	4,789	13	39
7. Unemployed	613	4	2,804	8	18
8. Unknown	33	0	75	0	31
Total	16,120	100	36,328	100	31

Source: Ministry of Public Health, 1997 [9].

the highest proportion of uninsured (44 percent).

The uninsured is required to pay all medical bills in full in both public and private hospitals. In public hospitals, an exemption mechanism through social workers is available for those unable to pay. An uninsured patient who cannot afford a bill of 7,622 Baht per admission could damage the household financial security [10], this accounts for 18.6 percent of the household annual income. They coped with medical bills by borrowing from either inside or outside the family network and could easily fall into debt traps. Another study showed that poverty (defined as household income eligibility for Low Income Card) and uninsured status were the major factors inhibiting access to antenatal care [11] (Table 2.6).

A self-explanatory Table 2.7 describes characteristics of insurance schemes in regard to scheme nature, population coverage, benefit package, and financing.

Table 2.6 Insurance status and maternal and child health profiles.

	Urban						Rural						All group
	Uninsured			Insured			Uninsured			Insured			
	Poor	Non-poor	Total	Poor	Non-poor	Total	Poor	Non-poor	Total	Poor	Non-poor	Total	
1. % without ANC	9	4	5	1	1	1	3	0	1	1	1	1	1
2. % < 4 ANC visits	43	28	32	12	13	13	41	34	36	18	17	17	21
3. % prenatal risk	34	23	26	29	27	27	26	19	21	22	20	21	23
4. % low birth weight	18	10	12	14	8	9	12	9	10	9	6	7	9
Number of sample	68	208	276	149	499	648	125	253	378	377	564	941	2,240

Source: modified from Wongkongkathep S. A three-day census of all deliveries in April 1999.

Table 2.7 Characteristics of health insurance and welfare schemes in Thailand, 1999.

Characteristics	I. Medical Welfare	II. CSMBS	III. SSS	IV. WCS	V. Health Card	VI. Private insurance	The Uninsured
I. Scheme nature	Social welfare	Fringe benefit	Compulsory	Compulsory	Voluntary	Voluntary	Na
Model	Public integrated model	Public reimbursement model	Public contracted model	Public reimbursement model	Voluntary integrated model	Voluntary reimbursement model	Voluntary out of pocket model
II. Population coverage, 1999 HWS	The poor, elderly and children under 12 years old, secondary school student, the disabled, veteran, monks.	Government employee, pensioners and their dependants (parents, spouse, children)	Private formal sector employee, > 10 worker establishment	Private formal sector employee, > 10 worker establishments	Non-poor households not eligible for Medical Welfare Scheme, community leader and health volunteer family.	Better off individuals	The urban, rural marginal poor, traders, self employed, employee in non-formal sectors.
Population 1999 HWS, million	19.8	5.5	4.36		11.50	0.83	18.58
% coverage	32.1%	8.9%	7.1%	Same as SSS	18.6%	1.1%	30.1%
III. Benefit Package							
● Ambulatory services	Only public designated	Public only	Public & Private	Public & Private	Public (MoPH)	Generally not covered	-
● Inpatient services	Public only	Public & Private (emergency only)	Public & Private	Public & Private	Public (MoPH)	Mainly private hospitals chosen	-
● Choice of provider	Referral line	Free choice	Contracted hospital or its network, registration required.	Free choice	Referral line	Free choice	Free choice
● Cash benefit	No	No	Yes	Yes	No	±	No

Table 2.7 Characteristics of health insurance and welfare schemes in Thailand, 1999. (cont.)

Characteristics	I. Medical Welfare	II. CSMBS	III. SSS	IV. WCS	V. Health Card	VI. Private insurance	The Uninsured
● Conditions included	Comprehen-sive package	Comprehen-sive package illness, injuries	Non-work related injuries	Work related illness, injuries	Comprehen-sive package	Depends on premium	-
● Conditions excluded	15 conditions	No	15 conditions	No	15 conditions	Severe illness, pre-existing conditions, depends on policy	-
● Maternity benefits	Yes	Yes	Yes	No	Yes	Possible	-
● Annual physical check-up	No	Yes	No	No	Yes	Possible	-
● Prevention, health promotion	Very limited	No	Health education, immunization	No	Yes	No	-
● Services not covered	Private bed, special nurse, eye glasses	Special nurse	Private bed, special nurse	No	Private bed, special nurse, eye glasses	Depends on policy and premiums	-
IV. Financing							
● Source of funds	General tax	General tax	Tripartite 1.5% of payroll each (reduce to 1% since 1999)	Employer, 0.2-2% of payroll with experience rating	Household 500 Baht + tax 1,000 Baht	Household, or employer in addition to social insurance	Households
● Financing body	MoPH	MOF	SSO	SSO	MoPH	Private companies	-
● Payment mechanism	Global budget	Fee for service	Capitation	Fee for service	Proportional reimbursement among 1ry, 2ry, 3ry care levels	Fee for service with ceiling	Fee for service
● Copayments	No	Yes: IP at private hospitals, IP private limits only life for threatening care	Maternity, emergency services, if beyond ceiling	Yes if beyond the ceiling of 30,000 Baht	No	Yes if beyond the ceiling, depends on policy and premium	-
● Expenditure per capita 1999 (Baht)	> 363 + additional cross subsidy by public hospitals	2,106	1,558	182	534 + additional subsidy by public hospitals	Na	Na

Table 2.7 Characteristics of health insurance and welfare schemes in Thailand, 1999. (cont.)

Characteristics	I. Medical Welfare	II. CSMBS	III. SSS	IV. WCS	V. Health Card	VI. Private insurance	The Uninsured
● Per capita tax subsidy 1999	363 + additional subsidy	2,106	519	Administrative cost of WCS office	250	Through income tax exemption for private insurance premium, magnitude unknown	Through public hospital subsidized prices. Magnitude unknown

2.5 Problems of the health insurance

The health insurance system, characterized by fragmentation, duplication and inadequate coverage in some schemes, cannot achieve health systems goals of efficiency and equity. It does not allow collective financing to exert its monopsonistic purchasing power and send the right signals to health care providers towards efficiency. Fee for service, a dominant mode of provider payment, exacerbates cost containment problems, as seen by faster health expenditure growth than GDP growth, even during recession periods [12]. With the lack of effective primary care, most of the poor are taken care of by hospitals which are expensive, have long waiting lines and unsatisfactory services.

Inequity was demonstrated by inequitable per capita tax subsidy, favoring CSMBS against Low Income Scheme, and the gap in the benefit package. However, the cross subsidy mechanism in public hospitals results in a smaller gap of net resources consumption by CSMBS and low income patients.

2.5.1 Medical Welfare Scheme

Targeting the poor is the main problem [13, 14] due to seasonal variation and difficulty of income assessment. Exemption through the hospital social work mechanism might not function well and could be stigmatized. Allowing the community [15] to identify the poor has gradually improved the situation. The community themselves have the ability to filter the poor and specify families who are not poor. MWS suffers from a comparatively stringent budget and hospitals are not accountable or willing to provide prompt and decent care [16].

2.5.2 CSMBS

The scheme has three inherited problems of inefficiency (reflected by unnecessary admission and longer hospital stay), cost escalation (real term increase of 14 percent per annum during 1988-1997) and inequity of per capita budget subsidy [17]. All players have no cost concerns; public hospitals have incentives to over-charge in order to cross subsidize their MWS patients, for profit private hospitals had motives to overcharge the scheme. When beneficiaries were faced with no price tag, they were not cost conscious and took it for granted. Problems were compounded by the fact that the Department of Comptroller General was neither capable to counter-act overcharging nor able to introduce a reasonable policy intervention [18].

2.5.3 Social Security Scheme

The strength of capitation is cost containment capacity [19, 20]. However, the cost quality trade-off has subsequently become a significant problem, especially when workers have not exercised their right to choose the provider with whom they registered [21]. In addition, they are unlikely to have full information on clinical quality of care when they exert rights to choose contractor hospitals. In fact they do not know which hospitals to choose. Health benefit is linked with employment and terminated when employment ceases, although a six month grace period is granted (extended to one year after the 1997 crisis). The provision on voluntary enrollment by ex-social security workers was not fully implemented by the Social Security Office, for fear of adverse selection and the financially non-viable.

2.5.4 Health Card Scheme

If the sick and potentially sick over-represent membership, adverse results are foreseeable [22]. This increases the average cost per enrolled person. The average cost per card (2,700 Baht) per annum does not match the revenue from the card sale (500 Baht) and subsidy (1,000 Baht). Half of the costs incurred are outside the district health system. If the benefit package covered only district health services, the revenue could cover the cost.

In summary, the poor are more or less protected by MWS even though targeting problems still exist. The marginally poor are not entitled to free health care cards but would generally be partially or totally exempted from large inpatient bills in public hospitals. They could easily fall into a debt trap through borrowing before presenting themselves to the social workers, especially in the case of catastrophic illness.

The CSMBS consumed more resources than any other group. With its fee-for-service reimbursement model, neither CSMBS beneficiaries, nor public or private providers are concerned with costs or efficiency. The capitation payment system in SSS admirably contained costs, but cost-quality trade off needs further scrutiny. Social Security has a high potential for coverage extension to dependents, non-formal workers and the self- employed. The voluntary Health Card Scheme has a limited capacity for coverage extension due to its voluntary nature and financial non-viability.

2.6 Recent reform

The Ministry of Finance and the Ministry of Public Health started reforming the **MWS** in 1998 by setting up a regulatory framework, improving accountability, decentralizing funds management, making the budget setting transparent and equitable and strengthening the primary care network. The budget is allocated to provinces according to the number of registered beneficiaries, weighted by health need factors. A re-insurance premium of 2.5 percent of the budget is deducted by the MoPH, and earmarked to pay for high cost care[1] and some special services [16, 23].

Assessments of the **CSMBS** copayment (introduced in 1998 [24]) found significant cost savings of 8 percent for an effective seven months of the interventions in 1998. In 1999, when the intervention took full effect, a cost saving of 21.7

[1] The criteria for high cost care is patient whose DRG relative weight greater than 2.5

percent was observed, mainly due to decreased inpatient expenditure. There was a 50 percent reduction in expenditure after the termination of private inpatient care [25].

The **SSS** has the highest potential for coverage extension of health benefits, especially to spouses and dependents, with a minimal additional contribution requirement. In addition, the scheme has the potential to extend coverage to the self-employed on a compulsory basis whereas voluntary membership suffers from significant adverse selection problems. This brings the uninsured to a cost-effective scheme, and boosts the cost containment ability in the long term. Other reform initiatives that have been planned or recently introduced include the improvement of the Scheme quality monitoring capacity, improving the information available to workers for their choice of contractor hospitals, and developing primary medical care.

After the reform in 1994, there were minor changes in the Voluntary Health Card [26]. The MoPH improved the targeting by eligibility termination for those who preferred to use private room and board. To combat adverse selection, a qualifying period before eligibility for services was extended from 15 to 30 days. In addition, reimbursements for cross-boundary care were paid by the provincial fund to prevent misuse of the cross-boundary card.

2.7 Future reform direction

Increasingly, evidence and intensive dialogues among key stakeholders guided reform decisions. There is a general consensus on health systems goals of efficiency, quality and equity and reforms direction towards universal coverage for the whole population. Different provider payment methods sent distinct signals to hospitals and physicians who are resource commanders for efficiency and quality. Lessons from the ongoing reforms in various schemes [27] could serve as a solid platform for future direction. The content of reform and the process to incorporate participation from civic societies and concerned parties are equally important for a successful, acceptable and sustainable reform.

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PART II:

Problem of specific health insurance schemes and reform direction

CHAPTER 3

Civil Servant Medical Benefit Scheme: Unregulated fee-for-service and cost escalation

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3.1 Overview of the payment mechanism and auditing system

The Civil Servant Medical Benefit Scheme (CSMBS) refers to the health benefit program provided by the government for civil servants, both in-service and retired, and their immediate family members-including a spouse, parents and off-spring (not more than three children less than 20 years of age). However, the definite number of beneficiaries of the scheme is not known. The estimated number is about seven million [1]. At present, CSMBS is under the management of the Department of Comptroller General, Ministry of Finance.

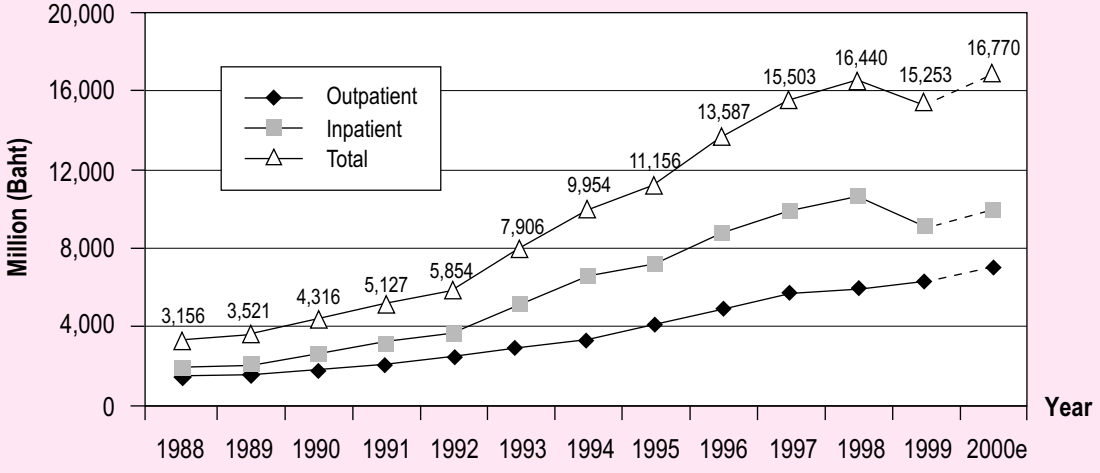
Many people consider the CSMBS to be one of the most generous health benefit and insurance schemes in the country [2]. The average per-person-per-year payment has been the highest at more than 2,000 baht, as compared to about 1,000 baht in the social security scheme and 273 baht in the health welfare of the indigent population [3]. Covered benefits include outpatient and inpatient, medical and surgical services, emergency services and drug expenses. The benefits exclude some services, such as cosmetic surgery and preventive services, except for annual health check-up. Beneficiaries can go to any public hospital for the services. The benefits to access private hospitals were also allowed recently, but they have been modified from time to time. However, beneficiaries cannot reimburse expenses made at physician clinics.

Before the recent cost containment measures in 1998, CSMBS beneficiaries could basically reimburse whatever public hospitals charged them. For outpatient prescription, the beneficiaries paid the expenses up-front and sent the receipts to the Department of Comptroller General for reimbursement. For inpatients, CSMBS paid hospitals based on charges. There were generally no preset rates, or ceilings for curative care until certain limits were introduced in 1998. However, the reimbursement remains a fee-for-service. Besides, no registration at hospitals is needed for the beneficiaries. Nor are hospitals required to make any contract with the government. Moreover, there has been no systematic auditing program for claims made by hospitals.

3.2 Trends of expenditure of the scheme and factors determining escalation of cost: a major concern of the government

The CSMBS expenditure has been increased dramatically for the past decade (see Figure 3.1). Between the fiscal year 1988 and 1997, the medical expenditure grew at the rates of 12 to 33 percent annually. In 1998, the total budget topped at over 16 billion baht, 4.5 times higher than in 1988. As both outpatient and inpatient service utilization increased, the proportion of inpatient expenditure expanded from 59 to 64 percent. It should also be noted that the expenditures dropped slightly in 1999 due to the effect of the short-term cost containment measures adopted by the government (to be mentioned in detail later). Nevertheless, they are expected to rise again in the year 2000 and succeeding years unless more drastic reforms are brought up.

Figure 3.1 Medical care expenditure of the Civil Servant Medical Benefit Scheme in the fiscal years, 1988-2000.



Source: (1) Department of Comptroller General, Ministry of Finance, 2000.
(2) Tangcharoensathien V, Pitayarangsarit S, and Terawatananon Y, 2000 [4].
Note: The expenditure amounts of the fiscal 2000 were estimated from the first six-month statistics.

The total expenditure multiplied but hospital charge per outpatient visit, hospital charge per inpatient day and charge per inpatient case in 1996-1997 nearly doubled that of the 1992 level, especially those of public hospitals (see Table 3.1). Furthermore, it is worth noting that more than three-quarters of outpatient expenditure and about one-third of inpatient expenditure were on drugs.

Table 3.1 Medical-care expenditure and utilization statistics of the in-service civil servants and families in the CSMBS in 1992 and 1996-1997.

	1992 (Bangkok only)	1996-1997 (Bangkok only)	1996-1997 (Average)
Outpatient (per visit)	667	1,172	647
% outpatient drug expense	80.4	71	78
Inpatient, Public (per day)	866	N.A.	1,524
(per case)	9,981	N.A.	10,061
% inpatient drug expense	40.2	N.A.	32
Avg. Length of stay (day)	13.4	N.A.	6.6
Inpatient, Private (per day)	3,194	5,588	3,242
(per case)	12,393	22,350	11,996
% inpatient drug expense	28.9	25	33
Avg. Length of stay (day)	4.4	4.0	3.7

Source: Tangcharoensathien V, et al., 1993 [5, 6].
Lertiendumrong J and Tangcharoensathien V, 1997 [7].

Several factors may contribute to the rise of the CSMBS expenditures. The most commonly acclaimed factor, however, is the use of fee-for-service and charge-based reimbursements. They are known to induce over-utilization in medical services and resources, demoting efficiency [8]. At the same time, there is no systematic and effective hospital bill review or chart audit to justify proper reimbursement. The Department of Comptroller General only acts as a claim processor. A study conducted by Sriratanaban J, et al. found that differential pricing, frauds and abuse of the system were said to occur among both private and public providers, although several claimed that the practices were much more common in the private sector [9].

In addition to the rapid escalation of medical care expenditure at rates that are much higher than the economic growth, CSMBS has been facing a number of major challenges, including:

- lack of data, particularly those of beneficiaries and those of provided services; and,
- no quality assurance and utilization review processes to ensure that quality and appropriate care is provided to the beneficiaries.

3.3 Recent cost containment measures: ineffectiveness of demand side interventions

This phenomenon raises a serious concern to the government. In early 1998 the Department of Comptroller General, with the approval of the Cabinet, implemented several measures in an attempt to contain the cost. Considered to be short-term measures, the major interventions to the CSMBS consisted of:

1) Restriction of the reimbursable drug expenses to those listed in the national essential drug lists, except in absolutely necessary conditions.
2) Determination of the patient copayment for special arrangement of room and board. At first, the beneficiaries aged less than 60 years old could reimburse 600 baht for the first 4 days, 300 baht for 5-9 days and none if beyond 10 days. The beneficiaries aged 60 years old or more could reim-

burse 600 baht for 6 days and 300 baht for 7-13 days. Later, the benefits were adjusted to the limited reimbursable amount of 600 baht for 13 days for all age groups.

3) Discontinuation of reimbursing doctor fees of evening (off-office-hour) clinics in public hospitals.
4) Discontinuation of reimbursing expenses incurred at private hospitals, except for life-threatening emergencies in which inpatient care expenses could be reimbursed by half but not exceeding 3,000 baht.

The study conducted by Pitayarangsarit S, et al. found that these short-term measures were somewhat effective in reducing outpatient and inpatient expenditures relative to the six-month pre-intervention period [10]. The effect on private inpatient expenditure was proportionally more dramatic than those on public outpatient expenditure. In contrast, the public inpatient expenditures were almost unchanged (see Table 3.2). As reported by the Ministry of Finance, the average savings in 1998 was 271.22 million baht a month, or 18.78 percent, in comparison to the number of the fiscal year 1997. However, the effect on the quality of care could not be definitely determined. Besides, there are still some loopholes of the measures which providers as well as CSMBS patients have taken advantage of. Some interesting observations are summarized in Table 3.3.

Table 3.2 Changes in medical care expenditures after short-term solutions.

	Civil servants			Retired civil servants			Total
	OP	IP Public	IP Private	OPD	IP Public	IP Private	
6 months pre-intervention	469	685	176	81	75	19	1,504
Phase 1 First 3 months	311	579	83	57	69	10	1,109
Phase 2 Next 3 months	390	644	105	68	80	11	1,299
Next 6 months	363	623	98	65	76	11	1,236
Saving	-106	-62	-78	-16	1	-9	-269
	-23%	-9%	-44%	-20%	2%	-44%	-18%

Source: Pitayarangsarit S, et al. 2000 [10].

Table 3.3 Effectiveness of the major short-term measures approved the Cabinet.

Short-term measures	Practice	Consequences
Copayment for drugs outside the 1999 national essential drug list.	CSMBS beneficiaries did not have to copay for "non-essential" drugs as three physicians in public hospitals frequently helped ascertain the necessity of the prescription-the provision allowed by the Department of Comptroller General.	Although the 1999 national essential drug list acts as the "maximum" list, in practice, the list is not effective in saving drug expenditures.
Limits on special arrangement for food and accommodation beyond 13 days, unless necessary endorsed by three physicians.	Generally effective. There were not too many cases whereby physicians endorsed longer stays. Hospital administrators also monitored proper endorsement of the longer stays.	Average length of stay markedly declined. In one of the studied provinces, the average length of stay decreased from 7 to 5 days.

Table 3.3 Effectiveness of the major short-term measures approved the Cabinet. (cont.)

Short-term Measures	Practice	Consequences
Discontinuation of access to private hospitals, except for life-threatening emergencies and accidents.	Biased justification of life-threatening conditions by providers was frequently found. Without close monitoring by provincial financial offices, reimbursement would gradually increase. Nonetheless, the rise in reimbursement was constrained by the 50 % co-insurance with the reimbursement ceiling of 3,000 baht.	The nationwide data demonstrated that private inpatient expenditure fell from 1.822 billion baht in 1998 to 788 million baht in 1999, or 57 % reduction. However, the effect is expected to be brief. Providers would adapt to increase reimbursement over the long run.

Source: Tangcharoensathien V, Pitayarangsarit S and Terawatananon Y, 2000 [4].

Despite the observed savings, the short-term and primarily demand-side measures have only been partially successful. The lower-than-expected reduction of public outpatient and inpatient expenditures might be a primary consequence of the ineffective measures to control overuse of drugs. Although the private hospital expenditure clearly declined in 1999 from 1998, fraud-prone reimbursement from private hospitals also contributed to the diminishing saving effects of the intervention. It is expected that the total expenditure of the CSMBS is on the rise again in the fiscal year 2000.

3.4 The reform directions: What initiatives are we planning to take?

3.4.1 Reform principles [1]

With these situations, reforming CSMBS is urgently needed. Inefficiency in the system, as suggested by the previous studies and past data, makes implementation of new cost containment measures without deterioration of quality of care a possibility.

Aiming for long-term solutions for a more efficient system, the Department of Comptroller General contracted a consultation team organized by the Health Systems Research Institute (HSRI) to work out alternative solutions. As proposed by the team, the reform principles for CSMBS are as follows:

(1) The reform will not reduce the medical care benefits that the CSMBS beneficiaries have received. In certain cases, some benefit components are so complicated that they should be discontinued. However, the principle will not be applied to any reduction of options to select services, drugs or medical supplies of different prices (without evidence of incremental advantages).

(2) The reform will enable effective health care cost containment, including administrative cost. While doing so, risk distribution within the fund as well as minimization of impact on medical care, quality and access will be taken into account.

(3) The reform will emphasize the principle of insurance. The priority of benefit design is on high-cost health care as a result of serious or chronic illnesses, rather than on minute outpatient expenses.

(4) Since policy makers want to encourage competition among providers to improve quality, the reform will give the beneficiaries rights to choose their own providers.
(5) The reform will strengthen the capability of the information and auditing systems, including quality assurance, utilization review and grievance processes.

3.4.2 Change of benefit packages for the beneficiaries

To comply with the principles of the reform, the benefit packages under the CSMBS are carefully reviewed. Some of the recommended revisions of the benefit components are shown in Table 3.4. There are two major changes worth mentioning in detail. Firstly, the previous concept of the scheme to provide merely medical care-health care after illness-has been expanded to a more comprehensive package to include health promotion and disease prevention. Secondly, beneficiaries are required to use services from the provider with which they register. They will have the right to choose and change their contracted providers annually from a list of contractor networks.

Table 3.4 Proposed change in the benefit packages.

Benefit package	Existing programs	Proposed changes
Outpatient services	● Public hospitals only (anywhere)	● Contracted public and private provider (hospital ± clinic) ● Choose to register at the contracted provider annually
Outpatient drug prescriptions and medical supplies	● Can be purchased only at point of services (pharmacies of public hospitals) ● Can reimburse only those items that are allied with the national essential drug lists	● Can be purchased at the accredited pharmacies, hospital-based or free-standing, in the CSMBS network ● Can reimburse at set prices based on generic items
Health promotion and disease prevention	● Annual physical check-up package (for <35 years old and ≥35 years old)	● Health screening according to age and sex-related guidelines set by the Medical Council ● Vaccination as recommended ● Personal health record book
Dental care	● Only curative dental care	● Preventive and curative dental care, excluding orthodontics
Emergency care and patient referral	● Full coverage in public hospitals ● Only inpatient service in private hospitals; cover half of general expenses not exceeding 3,000 baht	● Public and private hospitals (especially those in the CSMBS network) ● Benefits not less than the Social Security Scheme
Hospital inpatient care	● Public hospitals (Private hospitals in case of life-threatening emergencies)	● Public or private hospitals in the CSMBS network
Pregnancy and child delivery	● Public hospitals only	● Public or private hospital in the CSMBS network
Chronic diseases, diseases with high costs, diseases needing complicated technologies	● Public hospitals, both outpatients and inpatients	● Rules and criteria are to be set up

Table 3.4 Proposed change in the benefit packages. (cont.)

Benefit package	Existing programs	Proposed changes
Exceptions	● Not considered diagnostic and treatment procedures	● Cosmetic, infertility services, hormonal supplement, organ transplantation, sex change, orthodontics, experimental procedures, etc.

3.4.3 Modification of provider payment approaches and patient copayment

Along with the changes in the benefit packages for the beneficiaries, some new approaches to provider compensation have been introduced. In general, payments to providers are more prospective in nature. A global budget is recommended. Details of the proposal regarding provider payment is demonstrated in Table 3.5.

Table 3.5 Proposed approaches to provider payment and patient copayment.

Services/Providers	Payment methods	Remarks
Outpatient care	Capitation; no copayment	
Outpatient drug prescriptions and medical supplies	● Charge-based payment according to preset price lists; patients copay the excess	To minimize adverse effects of inclusive capitation for outpatient care
Health promotion and disease prevention	● Fee schedule; ● No copayment	Use coupons to limit visits and keep track of service records
Dental care	● Fee schedule; ● No copayment	
Emergency care and patient referral	● Fee schedule; ● Copayment needed if using services from hospitals outside the network	Inclusive in the inpatient payment if service by the contracted provider
Hospital inpatient care	● Will be chosen between: (1) Risk-adjusted capitation (additional to outpatient) (2) Global budget allocated to a hospital by DRG weight; ● Copayment needed if request for special arrangement of food and accommodation	Depends on system performance during the 3-year pilot period
Pregnancy and child delivery	● Fee schedule ● No copayment except for special arrangement of food and accommodation	Comparable or better than what is offered by the Social Security Scheme
Chronic diseases, diseases with high costs, diseases needing complicated technologies	● Capitation ● No copayment in principle	Closely similar to the Social Security Scheme

3.4.4 New information system and introduction of quality assurance and utilization review programs

A new comprehensive information system will be a priority. The beneficiaries database and service utilization database is critically needed. At the same time, a number of quality assurance (QA) and utilization review (UR) measures will be set up to look over standards, effectiveness and efficiency of the system. QA programs will consist of the formation of the contracted provider network, quality standards and auditing systems, grievance management, medical records and claim audit, care process and outcome monitoring, quality indicators of providers, as well as internal quality assurance programs for internal management of CSMBS. UR programs will include prospective UR (e.g., pre-admission authorization for specific conditions), concurrent UR and retrospective UR (e.g., hospital bill review) [11].

3.4.5 Organization and management

A new administrative body, the Civil Servant Health Benefits Administration (CSHBA), will be set up. The organization will comprise five functional departments, the administrative board-with representative from all major stakeholders-and three main expert committees for consultation on controversial issues and system development. The latter is designed after the Social Security Scheme [12].

The proposal was presented to a selected panel of government officers from various ministries and departments, representatives of public and private health care providers, and administrators of related governmental agencies for feedback. In terms of its acceptability, the proposal might not completely satisfy all the parties. Concerns were often raised on the issue of cost (or limited budget) versus quality of care and freedom of choice. But the proposal offers an adequate guarantee for better performance than the current system.

In conclusion, the Civil Servant Medical Benefit Scheme (CSMBS) is a classic example of the failure of the insurance and welfare scheme using retrospective reimbursement to contain costs. Furthermore, in spite of minimal control on expenditure, it is still highly questionable if the system provides good quality of health care to the beneficiaries. The experience has demonstrated that although demand-side interventions could deter cost escalation, the effect lasted only for a short period of time. It is hoped that the comprehensive set of reform emphasizing the supply side of the system, will be a more effective way to gain efficiency-to contain cost while improving or at least maintaining the quality of care. The other important lessons might be that information and effective management are critical means for reform.

3.5 Acknowledgement

The author would like to express a deep appreciation to Dr.Viroj Tangcharoensathien and his associates for their dedicated works on the cost and reform issues of the Civil Servant Medical Benefit Scheme. The team has become a solid foundation for the reform proposal. In addition, the contributions of all members in the advisory committee to the Ministry of Finance for the reform are greatly acknowledged, particularly Dr. Ammar Siamvala-the chairman of the committee.

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CHAPTER 4

Social Security Scheme: Experiences of capitation payment system

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4.1 Overview of the payment mechanism of scheme

The Thailand Social Security Act was implemented in September 1990. The compulsory social health insurance is one part of this Social Security Act. Article 62 defines the general term of the sickness benefits package cover [1] as:

(a) Diagnostic cost
(b) Treatment cost
(c) Accommodation, food and treatment cost in the hospital
(d) Medication and medical appliance
(e) Ambulance and transportation costs
(f) Other necessities

As stated in the act, the Social Security Office adopted the Medical Committee* recommendation regarding the benefits package and payment mechanisms. The benefits are defined as:

1. Diagnostic and treatment
2. Hospitalization including room, nutrition, and treatment.
3. Pharmacy and medical supplies quality not under the National Drug List.
4. Referral system and ambulance cost
5. Health education and immunization according to the National Health Program.

The benefits defined above apply to all diseases except any illnesses or injuries inflicted by the person or any injuries which the person requested others to inflict.

The health services must be provided until the patient has completely recovered. Either that or when nothing in the medical professional can improve the patient's condition. Those conditions are not a medical necessity and those that are too expensive to provide are exempt from the package.

Reimbursement to providers was generally limited to physicians and hospitals on the "list"; that is, with some contractual agreement with the health insurance fund to adhere to the charges negotiated between the fund and provider organizations. This is termed the "indirect" method of providing health care benefits in the health insurance programs [2].

* The Medical Committee comprises 15 physicians from various specialty organizations.

In most health insurance international practices, the government pays the doctors and hospitals separately. Fee-for-service payment is common as well as capitation payment (a fee of so much per head). The Social Security Scheme (SSS) chose this indirect method on a contractual basis.

The capitation payment was first introduced in Thailand by the Social Security Office and it was capitated both for outpatient and inpatient services. Firstly it is cost containment according to the actuarial (calculated as actuaries or a person whose work is to calculate statistical risks, premiums and life expectancies) analysis and projection at that time. That is, the actuaries calculate whether the Social Security Scheme pay by the fee-for-service method would amount to a deficit in the early stages. Secondly, the scheme aims to avoid unnecessary administrative costs especially in hiring medical professionals to check or audit claims and to hire a great deal of staff to annually process large claims.

There are certain weak-points under the capitation payment. The Social Security Office developed a sub-system of payment to tackle those weak-points at the beginning [3]. They are as follows:

(a) Fee-for-service reimbursement for emergency and or injury from accident. This method of payment is the means to cope with a situation that insures the urgent need for treatment when those patients are not able to go to registered hospitals.

(b) Lump Sum Additional Payment for high cost medical service: There is a tendency for registered hospitals to avoid treating the insured person if he or she needs advanced technology or high cost procedures. SSS introduced this extra payment to reduce concern from providers.

(c) Additional payment according to the utilization rate; after four years of scheme implementation, some hospitals complained that they were in deficit but many others were not. Statistical analysis showed that hospitals with high utilization rates were in trouble but the rest were unaffected. Instead of raising the capitation rate, SSS would pay according to the ranking of the utilization rate.

Under the capitation payment, insured persons only have access to selected hospitals. They may become acutely ill or become an accident victim but it is not possible for them to have access to registered hospitals. Consequently it would be imperative that they be treated at the nearest hospital. In these cases, SSS reimbursed the cost by fee-for-service payment and may not fully reimburse the particular private hospital. This regulation has changed slightly over the past ten years to reduce the burden of insured persons. However, the main concept still maintains that the insured persons are able to receive general services from selected hospital. Unfortunately this was quite a low incentive to utilize any services from non-registered hospitals.

Right from the start of the capitation payment, all concerned parties were wary that the quality of care would be lower than other schemes. Despite the fact that contractor hospitals are efficiently managed, there is still a problem of insured persons needing treatment by specialists and/or sophisticated medical equipment. This would mean that contractor hospitals might shift to the more conservative lower cost care. This kind of decision may be perceived by insured persons as low quality service. The SSS decided to put additional payment for high cost medical services to

prevent or reduce these circumstances. There is a list of treatments that SSS will pay to contractor hospitals in addition to the lump sum per case. The list includes open-heart surgery, neuro-surgery, chemotherapy in malignancy cases, etc.

Later in the year 1995 some hospitals, mostly in industrialized areas, complained that the capitation amount was not enough. There were no firm evidence or data to confirm these complaints. On the other hand some hospitals made profits from the same capitation amount. Instead of increasing the capitation amount for all hospitals, SSS introduced another additional payment scheme which was related to the utilization rate whereby each hospital and all contractor hospitals must provide monthly utilization and costing (price) data to SSS.

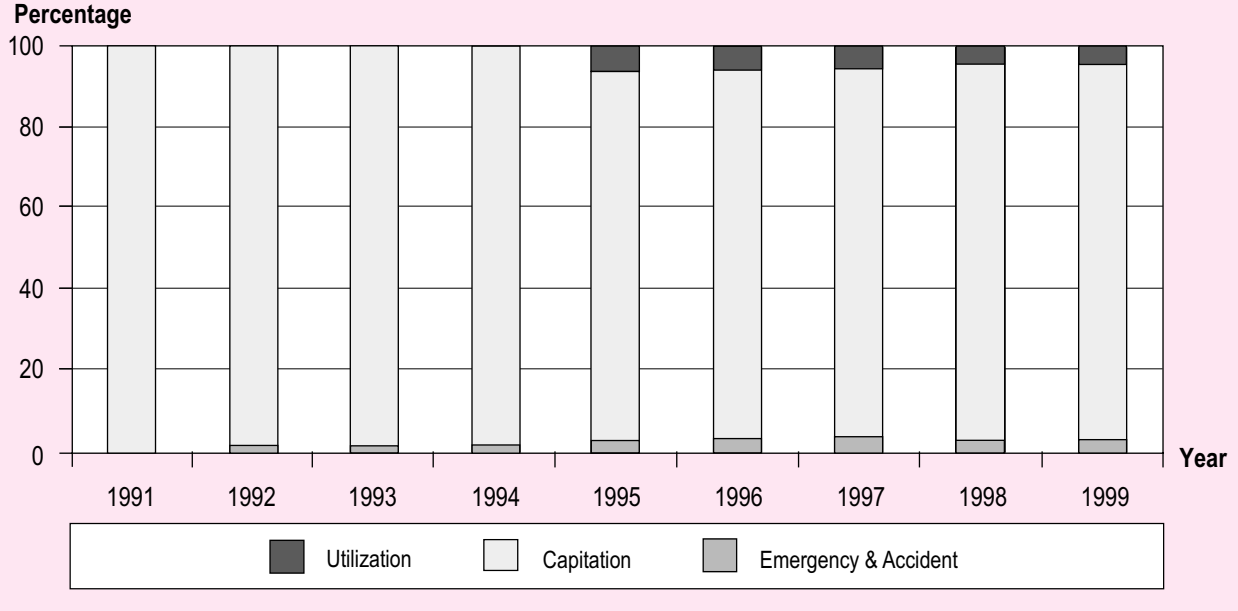
Table 4.1 Medical service expenses, 1991-1999.

Unit : Million Baht

Year	Emergency & Accident	Capitation	Utilization
1991	1.46	755.83	-
1992	19.61	1,790.09	-
1993	28.48	2,079.92	-
1994	44.21	2,541.34	-
1995	71.42	2,792.57	198.09
1996	117.12	3,642.97	246.66
1997	152.48	3,802.81	261.93
1998	153.73	5,659.43	297.93
1999	149.73	5,074.35	300.82

Source: Analysis from Technical and Planning Division database, Social Security Office.

Figure 4.1 Medical service expenses 1991-1999.



Source: Analysis from Technical and Planning Division database, Social Security Office.

4.2 Market structure and trend

Initially SSS covered establishments that had 20 or more employees. After 1994 it extended coverage down to establishments with 10 employees upwards. The number of insured persons are shown in Table 4.2

Table 4.2 Number of insured persons and establishments, 1991-2000.

Year	Insured person	Establishment
1991	3,223,167	32,255
1992	3,472,539	35,588
1993	4,623,607	55,623
1994	4,970,805	65,181
1995	5,184,441	73,604
1996	5,589,855	82,582
1997	6,084,822	90,656
1998	5,418,182	93,093
1999	5,679,567	100,360
2000	5,922,100	105,736

Source: Analysis from Technical and Planning Division database, Social Security Office.

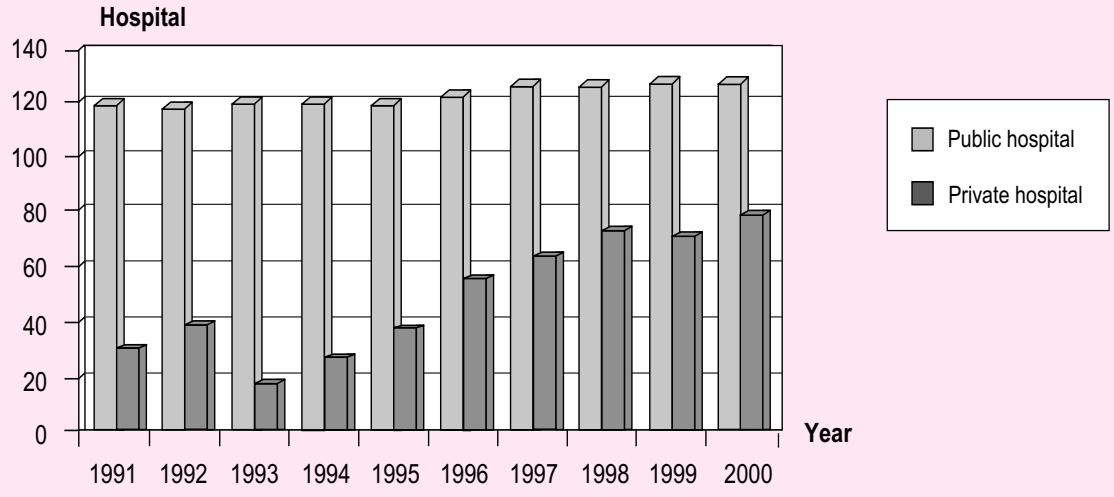
One of the key strategies was the Social Security Scheme, which bought services from both public and private providers. Number of providers changed over time as shown in Table 4.3 and Figure 4.2

Table 4.3 Number of contractor hospitals, 1991-2000.

Year	Public hospital	Private hospital	Total
1991	119 (86.86%)	18 (13.14%)	137
1992	118 (81.38%)	27 (18.62%)	145
1993	119 (76.28%)	37 (23.72%)	156
1994	122 (68.93%)	55 (31.07%)	177
1995	126 (66.67%)	63 (33.33%)	189
1996	126 (63.64%)	72 (36.36%)	198
1997	127 (64.65%)	70 (35.53%)	197
1998	127 (61.96%)	78 (38.04%)	205
1999	128 (55.41%)	103 (44.59%)	231
2000	130 (53.28%)	114 (46.70%)	244

Source: Analysis from Technical and Planning Division database, Social Security Office.

Figure 4.2 Number of contractor hospitals, 1991-2000.



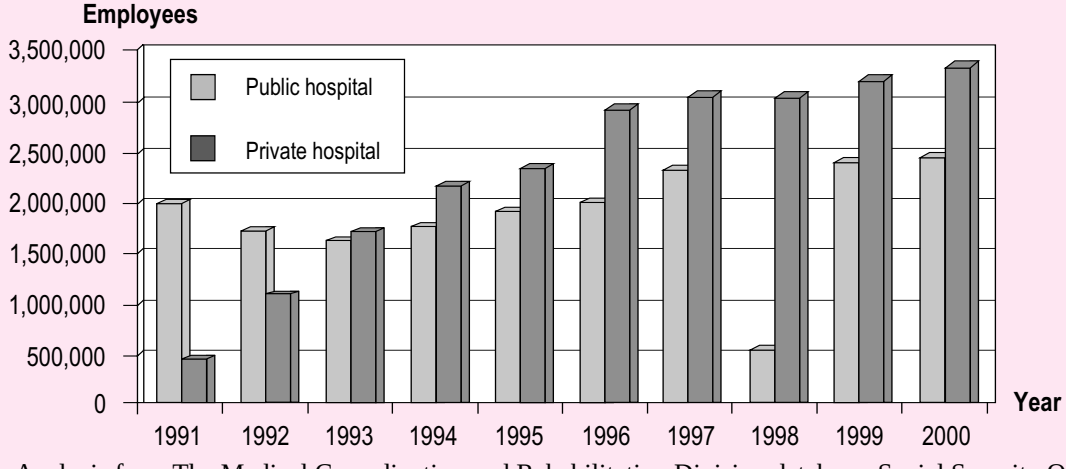
Source: Analysis from Technical and Planning Division database, Social Security Office.

Table 4.4 Number of individual choice of hospitals, 1991-2000.

Year	Public hospital	Private hospital	Total
1991	1,996,953 (82.22%)	414,234 (17.18%)	2,411,190
1992	1,703,246 (61.82%)	1,051,844 (38.19%)	2,755,090
1993	1,612,077 (48.68%)	1,699,290 (51.32%)	3,311,367
1994	1,748,345 (44.71%)	2,162,328 (55.29%)	3,911,162
1995	1,900,258 (44.81%)	3,339,752 (55.18%)	4,240,010
1996	1,980,582 (40.38%)	2,924,262 (59.62%)	4,904,844
1997	2,317,446 (43.10%)	3,058,912 (56.90%)	5,376,358
1998	2,534,412 (45.46%)	3,041,163 (54.54%)	5,575,575
1999	2,396,250 (42.73%)	3,211,751 (57.27%)	5,608,001
2000	2,436,704 (42.01%)	3,368,005 (57.99%)	5,799,709

Source: Analysis from The Medical Co-ordination and Rehabilitation Division database, Social Security Office.

Figure 4.3 Individual choice of public hospitals compared to private hospitals, 1991-2000.



Source: Analysis from The Medical Co-ordination and Rehabilitation Division database, Social Security Office.

4.3 Response of providers: networking

The main contractor hospitals located in Bangkok and its vicinity are highly competitive. In 1992 two main contractor hospitals formed a private network and introduced the group of network range from clinics, polyclinics and small hospitals to general and specialized hospitals. This idea attracted insured persons and the number grew rapidly from 50,000 members in 1992 to nearly 300,000 members in 1995 [4]. Many of the main contractor hospitals (both public and private) were losing their numbers to this private network. The public hospitals under MoPH came up with public facility networks and public health center community hospitals. However, these could not compete with the private network. No studies have been undertaken as to how and why workers deny public networks. But the obvious reasons were:

(a) Those networks provided services at official hours

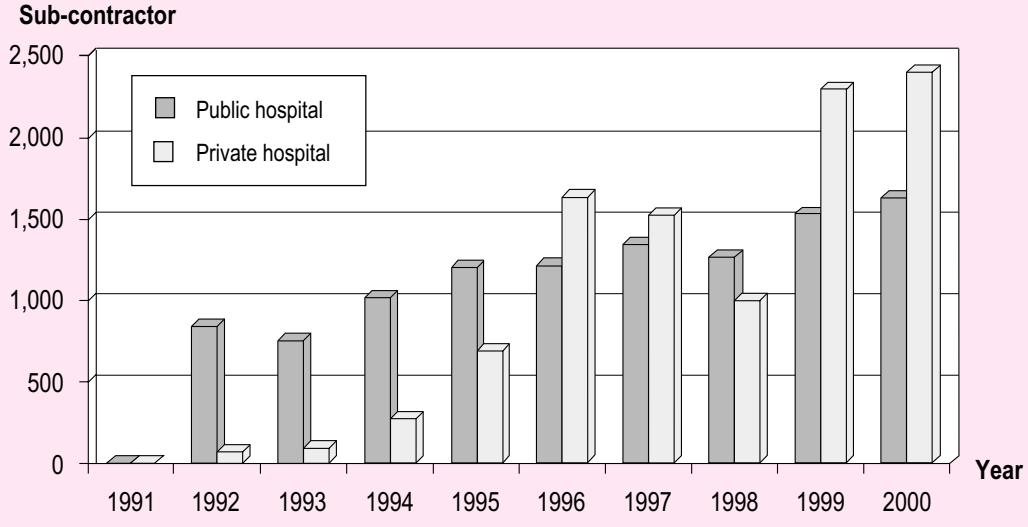
(b) Most of the services in public facilities are still slow and the staff unfriendly

Table 4.5 Number of sub-contractor hospitals, 1991-2000.

Year	Public hospital	Private hospital	Total
1991	-	-	-
1992	838 (92.39%)	69 (7.61%)	907
1993	748 (89.15%)	91 (10.85%)	839
1994	1,019 (78.15%)	275 (21.25%)	1,294
1995	1,206 (63.57%)	691 (36.43%)	1,897
1996	1,210 (42.62%)	1,629 (57.38%)	2,839
1997	1,340 (46.90%)	1,517 (53.10%)	2,857
1998	1,263 (55.96%)	994 (44.04%)	2,257
1999	1,522 (39.88%)	2,294 (60.12%)	3,816
2000	1,621 (40.38%)	2,393 (59.62%)	4,014

Source: Analysis from The Medical Co-ordination and Rehabilitation Division database, Social Security Office.

Figure 4.4 Number of sub-contractor hospitals, 1991-2000.



Source: Analysis from The Medical Co-ordination and Rehabilitation Division database, Social Security Office.

Nopparat, a public hospital, was one of the major losers in the public sector which lost its private network. Its members reduced from 50,000 to 35,000. In 1994, Nopparat hospital came up with a group of private clinics and public hospitals - they had started an innovative public-private mixed network. Positive response in both the public and private sector has shown to be fruitful.

Payment between the main contractor hospitals and the subcontractors are different. Some pay by fee-for- service with a ceiling while others pay a fixed amount per visit with guidelines for the referral system. The total number of sub-contractors is presently increasing by a much slower rate than its early stage. A number of clinics leave out some steps for various reasons because no single payment mechanism is without its flaws.

Private shares were evidently negatively associated with concentration in number. This pattern showed up every year during the period 1993-1997 when private main contractor hospitals and their networks grew in dominance [5].

Most of the private main contractor hospitals still put clinics or polyclinics as sub-contractor members in their pamphlet to attract workers.

4.4 Access and utilization of services

During the early stages, accessibility was a problem as shown by the rather low utilization rate. The major cause of this was that the employers chose the hospitals instead of the employees and at the time, there were limitations of main contractors and their networks.

In 1992, the Social Security Office started the free choice (made by employees) in some provinces and in 1994 expanded the concept throughout the country. No official data for accessibility has come up, but indirect information shows that less than 10 percent of insured persons change their hospital, less than five percent of the members claim for emergency treatment and utilization rate has increased over time; even the employees are younger and probably healthier. The utilization rate was nearly the same as the general population utilization rate.

Table 4.6 Utilization of health, 1995-1999.

Type	1995	1996	1997	1998	1999
Out-patient	1.22	1.34	1.52	1.46	2.15
● Public	1.00	1.16	1.44	1.40	2.07
● Private	1.41	1.45	1.59	1.50	2.22
In-patient	0.130	0.147	0.16	0.15	0.19
● Public	0.14	0.17	0.19	0.17	0.22
● Private	0.12	0.13	0.15	0.13	0.17

Out-patient (time/person/year) In-patient (day/person/year)
Source: The Medical Co-ordination and Rehabilitation Division, Social Security Office.

Some providers complained that unnecessary use by employees who requested medical certificate for sick leave, shop around for sub-contractors or request drugs for their friends and relatives in the high quality hospitals such as Siriraj, Chulalongkorn and Ramathibodi hospitals. The chronic illness cases utilized services more than general hospitals at these establishments. Unfortunately no hospital had substantial evidence.

4.5 Provider internal responses and quality implication

Since the revenue varies according to the number of employees who choose the hospital, profits depend on the expenditure side. Both private and public hospitals have set up various activities in internal management to accommodate this new concept.

Table 4.7 Internal management of MC hospitals.

Features of internal management	Public network (n = 9)	Private network (n = 3)
Set up a new unit or department for managing social security service	5	1
New administrative positions for SSS	7	1
Change in medical specialty mixes	4	2
Special assignment of physicians and gatekeeper	2	1
Different payment arrangement for physicians	5	3

Source: Impact of Capitation payment; The Social Security Scheme in Thailand (Draft Report), Partnerships for Health Reform, Major Applied Research August 27, 2000 [5].

Seven public main contractor hospitals created new administrative positions. Five out of these nine set up a new unit for managing social security services and most public hospitals formed internal committees. All the main contractor hospitals appointed at least one full time person to be responsible for all SSS activities. The Social Security Office printed a book of contact persons in every main contractor hospital with telephone numbers and distributed them to all hospitals and some employees [5].

Private hospitals tended to hire more general practitioners and fewer specialists. Both public and private hospitals have created a new payment system for physicians. Many hospitals require full time physicians and consultants in order to follow the clinical practice guideline.

Pharmaceutical and medical prescription are another area for change. Most of the hospitals that service their own drug list, have purchased more locally made drugs and tended to prescribe in generic terms (drugs without a brand name). Some hospitals have gathered in groups to build up a negotiating power with pharmaceutical distributors and have been successful in reducing drug costs.

Public hospitals have provided incentives by giving service discounts for members' spouses and providing special services such as annual check ups at clinics and factories. Since physicians are crucial to the hospital management utilization review, patient complaints and admission authorization are monitored and medical records have been greatly improved by a new, adjusted system. Complaints are filed in the SSS documentation and medical record. Now the hospitals track length-of-stay, readmission rates and prefer to perform minor surgery without having to admit patients.

Quality assessment was generally performed on a hospital-wide scale, rather than limited to social security services. However, some hospitals credit the use of quality assessment practices to the cost containment pressures and increased competition associated with the capitated payment under the SSS [5].

All hospitals must improve their medical information system, firstly for hospital management and monitoring, and secondly to comply with the social security contract which means that patients who need the additional payment will actually receive it.

Lately, private hospitals have focused attention on health promotion and disease prevention. Some hospitals contact the factory and directly provide the medical services. While other hospitals participate in the healthy work place project and implement the activities together with the employers.

4.6 Economic crisis and providers' responses

The economic crisis has affected private hospitals directly and indirectly. Most of the hospitals that have borrowed loans from foreign currencies collapsed suddenly just like other businesses in Thailand. Their main customers in the out-of-pocket markets and companies also fell suddenly. Hospital income was reduced drastically. Some newly opened hospitals have had to seek SSS patients. Their main reason is to keep the cash flow to keep the hospital running which is better than closing it down completely. The number of hospitals in this group is substantial - at least 14 hospitals participated in 1998 and 27 hospitals applied to join the scheme in 1999. Most of these hospitals were providing service to the general public before the crisis.

Some hospitals started to seek partners for resource sharing not only between private to private hospitals but also between private to public hospitals.

4.7 Recommendations

The capitation payment method under SSS contributes in some parts to health care reform yet it also raised a great deal of argument. The whole broad picture of the capitation payment mechanism is good for the Social Security Scheme and may be for Thailand too.

4.7.1 Some customers and the press complained about the quality of service. Of course few contractor hospitals may try to keep costs down by employing less staff. The Social Security Office together with other concerned parties such as MoPH, the Medical Council of Thailand and professional associations have campaigned about the quality of care at an appropriate cost. Thailand cannot afford medical care at all costs particularly for high technology. The Social Security Office's urgent task is to develop an easy and understandable quality indicator by installing stricter quality assurance programs.

4.7.2 Empower insured persons or employees by allowing employees to chose their own hospitals without any influence from the personnel section or employer. Provide enough information for insured persons to make decisions, such as hospital performance in the past three years, number of doctors and nurses, satisfaction survey etc.

4.7.3 There are complaints of patients shifting from private and general hospitals to university hospitals. The Social Security Office wants keep the capitation method as a major payment mechanism but has to bear the cost of patients moving to specialized hospitals.

4.7.4 Health promotion and disease prevention is more important than treatment. The Social Security Office must focus on the employees' health more than

their illnesses. The Social Security Fund is one of the major sources of health financing. To work more efficiently, SSS may need an immediate amendment of the Social Security Act to allow payment for health promotion and disease prevention.

4.8 References

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CHAPTER 5

Medical Welfare Scheme: Financing and targeting the poor

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The medical welfare of the poor is the government's responsibility in practically all countries. In Thailand the medical welfare scheme for the low-income, usually called the Low-Income Card Scheme, is expanding to provide coverage to more underprivileged people. This paper presents the development of the Low-Income Card Scheme (which has been extended to cover people without using income criteria), problems encountered with the scheme, and the reforms that were designed to solve problems such as mis-targeting and under-funding. The paper concludes with the long-term policy recommendation that the country should move towards universal coverage whereby those who are not already covered by any insurance will have equal access to health care without financial barriers.

5.1 Development of the scheme

The Medical Welfare Schemes for health coverage have been put up successively by several governments. The first initiative was in 1975, when the government aimed to reduce inequity by providing free medical care to low-income groups. Means tests have been developed based on cash income to draw the cut-off point for the eligible. At first, the low income was defined as any individual with income of less than 1,000 baht a month. However, it was not until 1981 that the low-income cards (LICS) were issued to 10.9 million poor who passed the means test (about 23 percent of the total population).

After the 1983 International Year for the Elderly, information on health utilization of the low income included the elderly. At least four types of elderly were identified when they came for health services: self-pay, the Civil Servant Medical Benefit Scheme (CSMBS), the low-income cardholders and type B low income[1]. It was not until 1992 that the explicit policy of free care for the elderly was announced in the Ministry of Public Health Regulations. In 1993, the policies expanded to cover children under 12 years old, the handicapped and religious leaders. In 1994, the scheme changed its name from the Medical Welfare Scheme for the Low Income to the Medical Welfare Scheme for underprivileged groups. Six types of people are classified as underprivileged:

[1] Type A low income means that they are the low-income cardholders, type B means anyone who has no card but requests free care or partially subsidized care.

- the low-income cardholders (the poor),
- the elderly
- children under 12 years old
- veterans
- religious and community leaders,
- the handicapped.

The term 'LICS' used in this article covers all varieties of the medical welfare scheme for the underprivileged. 'The poor' will refer specifically to the low-income cardholders.

The Voluntary Health Card Scheme (VHCS) developed since 1983 (see details in the next section) complements and substitutes the LICS, even though the VHCS was designed to cover the near poor groups. The main issues related to the VHCS are presented in the next section.

5.1.1 Problems encountered with the LICS

The following is a short list of the problems encountered with the concept and operations of the LICS. The problems listed will be exemplified by developments in the following sections [(1)]:

1. How many people are actually covered under the schemes? How to counteract overlapping coverage: LICS, VHCS, CSMBS, and others?
2. How to improve the means testing processes: differential poverty lines for different provinces, and the community process to identify the poor?
3. Do the other 'underprivileged' groups need this health benefit, e.g. the elderly, children under 12 years old, the handicapped, religious leaders?
4. How to counteract the 'near poor' group who have no coverage and face high medical bills? Should we adopt a 'universal coverage' or 'catastrophic illness' (whereby the ill person goes into debt on account of his hospital bills) approach?
5. Is the health package currently provided appropriate? Is cost containment the key issue of the scheme? What is the appropriate per capita budget to provide benefit to these beneficiaries?
6. The schemes are severely underfunded because of high population coverage and low government budget. How can this problem be solved?
7. How to allocate the LICS budget more equitably and efficiently? Is it the allocation of LICS budget only or should it include the 'ordinary' recurrent budget of the provincial hospital and Rural Health Division?
8. Allocation of funds within the province is inequitable. How can we solve this?
9. How can we ensure an acceptable medical standard for the poor regardless of their ability to pay, as specified in the new constitution?

5.2 Targeting the poor: the unfinished solution

5.2.1 Population coverage

Since 1981, 10.9 million people were issued low-income cards. In 1984 and 1987 to 1990, the cut off point for issuing the low-income card was raised to 1,500 baht a month for the single person and 2,000 baht a month for the whole family. In 1993, this was further raised to 2,000 baht a month for the single person, and 2,800

baht a month for the family. The number of low-income cardholders dropped in 1987 to just 7.6 million, but recouped in 1990. The numbers in 1998 dropped to only 5.8 million because target groups of other underprivileged schemes were taken out, and the new means testing had been applied (described in detail later). If all types of underprivileged are summed, the actual coverage (reported figures of number of cards issued) in 1998 is 17.7 million people, or 28.9 percent of the total population (see Table 5.1).

Table 5.1 Number of the low-income cardholders (in millions) by region and year.

	1981	1984	1987	1990	1998 [1]	1998 [2]
Central	1.840	1.656	1.293	1.816	0.749	3.242
Northeast	4.985	4.522	3.500	5.573	2.972	8.137
North	2.966	2.717	1.850	2.390	1.395	3.935
South	1.101	1.232	978	1.639	0.648	2.326
Bangkok	0	0.029	0.022	0.077	0.017	0.031
Total	10.892	10.156	7.643	11.495	5.792	17.671

[1] Reported figures for the low-income cards issued in 1998.
[2] Reported figures for all types of cards issued to the underprivileged in 1998.
Source: Pannarunothai S, et al., 2000 (2).

Since 1994, the number of people covered by the LICS was confusing because of the overlapping of target groups especially the elderly and children under 12. Since the issuance of the cards is based on age characteristics rather than the family unit, the Office of the Budget asked the MoPH to clarify any overlappings. They reached the conclusion that in 1997, about 41 percent of the total population were covered by the LICS, and expected to have actual figures from the next round of card issuance.

5.2.2 Leakage in card issuance

It is a known fact that issuing the low-income cards to the poor has inherent biases (3). The first evaluation was carried out by the Rural Health Division in 1980, through the sampling of users at 513 health providers in nine provinces. Twelve percent of the low-income cardholders at provincial and district hospitals and nine percent at health centers had incomes that were higher than 2,000 baht a month, and hence should not be given the cards.

The second evaluation was carried out by the Rural Health Division and Mahidol University in 1988 (4), through the sampling of 13,865 households in 36 provinces. The prevalence of the low-income cardholders was 22 percent of the total population while the prevalence of low income was 62 percent. Moreover, 21 percent of the cardholders were not poor, and 72 percent of the poor did not acquire the cards (this study was somewhat biased because the prevalence of the poor in rural areas by the Office of the National Statistics survey was only 44 percent of the rural households, therefore, the percentage of the poor who did not have the card could have been lowered).

Due to high leakage in the 1990s, a strategy to increase effective coverage and to reduce misclassification was implemented and the following measures were proposed:

- Active finding of the target groups,
- Expanding the targets to cover the handicapped, the elderly, landless

farmers, and marginal workers,

- Active dissemination of information,
- Facilitating the process of card application.

The Third National Evaluation by Tumkosit [5] shows no improvement in targeting the poor. One third of surveyed households were poor, and only 32 percent had low-income cards. Furthermore, among the low-income cardholders, only 55 percent were poor according to family income criteria. In short, the effective coverage rates[2] increased from 28 to 32 percent of the total poor, but the correct target rates reduced from 79 percent to 55 percent of the total low-income cardholders (again, there were problems on sampling methods and of comparison of results from both national surveys). The study recommended two approaches to counteract the leakage of card issuance:

- The first approach is the improvement of poverty measurement. The cut off point for the poor reduced to 10,000 baht per person per year, but the current assets should not be higher than 571,000 baht. The means test should be improved to take account of the social guide process. Other non-cash criteria include unemployment of more than 300 days during the past year and a dependency ratio of higher than 0.50.
- The second approach relies on internal audit. An active finding process was established to find the poor households instead of disseminating information to the general public. The social guide process was applied to the community survey and screened out the non-poor families by a combination of criteria. The process of screening the poor should be re-examined annually.

The above recommendations of better targeting the poor are not easy to implement. The latest round of card issuance has adopted some of them; effective coverage was only 17 percent and correct targeting was 35 percent [6].

5.2.3 New poverty lines and the performance to achieve targets

Determining the cut off points for low-income cardholders were unusual because people in urban and rural areas were treated the same. Observations were made that the cut off point for the poor single in 1988 was four times the poverty line. It was 1.5 times the poverty line in rural areas, and the same poverty line for the poor family in urban areas [7]. Perhaps the cut off points were neither designed for rural nor urban settings nor updated periodically.

Table 5.2 Poverty lines and cut off points of means tests.

Poverty line Baht/person/yr	1975/76	1980/81	1985/86	1988/89	1993/94	1997/98
Rural	1,981	3,454	3,823	4,141		
Urban	2,961	5,151	5,834	6,324		
The cut of point Baht/month						
Single	1,000	1,000	1,500	1,500	2,000	2,000
Family	-	-	2,000	2,000	2,800	2,800

Sources: Donaldson D, et al., 1999 [1].

2 Effective coverage rate = (The poor who have low-income cards)/(The total poor people surveyed)
Correct target rate = (Low-income cardholders who are poor)/(The total low-income cardholders)

In 1997, the National Economic and Social Development Board (NESDB) proposed new methodologies of estimating poverty lines. Four variables are determinants of poverty: family members, age and sex of each member, locality of the family (region, urban/rural), and family income. Therefore, the new method draws different poverty lines for different characteristics of families. On average, the new method had 473 baht/person/month as the poverty line for 1988 (5,676 baht/person/year or 1,845 baht/family/month assuming that there are 3.9 members per family) and 636 for 1994 (7,632 baht/person/year or 2,480 baht/family/month assuming that there are 3.9 members per family).

The MoPH adopted this new concept of drawing poverty lines. However, applying this to certify the eligible families or individuals would have been very difficult. The MoPH finally decided to apply varying poverty lines at the macro-level. Data from the NSO's socio-economic survey of 1994 were used to determine the number of people classified as poor. These figures were set as targets for 76 provinces to issue low-income cards in 1997-1998.

The social guide process was advocated so that each province could set up community committees to scrutinize the applications. Table 5.3 compares the performance of issuing different types of underprivileged cards against the targets. The highest performance was the issuing of the cards to veterans because they already have cards issued by the veteran office. The second highest was the issuing of the low-income card, 89 percent of the specified target (166.1 percent). The lowest on the list was the issuing of the cards to monks and religious leaders (36 percent of the target). Figures 5.1 and 5.2 show the variations of performance by provinces and by types of cards. In Figure 5.1, the performances for issuing the low-income and the disabled cards in some provinces were excluded because they were many times higher than the target (1442 percent, 44,391 low-income cardholders went over the target of 3,078 for Angthong in Ayutthaya province). Twenty-five provinces issued low-income cards above the targets (incentives for doing this will be discussed later). Bangkok was the lowest performer on the list - only 38 percent of the targets were issued the low-income cards.

Table 5.3 Target and performance of low-income card issuance in 1998, (in million).

Groups	Target	Issued	%
Low-income	6.48	5.79	89.39
0-12	13.37	6.92	51.76
Student	2.54	1.42	55.90
Handicapped	0.18	0.13	71.98
Veterans	0.11	0.11	100.00
Monks and religious leaders	0.33	0.12	36.19
Elderly	4.68	3.13	66.75
Temporary	-	0.06	-
Total	27.69	17.67	63.82

Source: Donaldson D, et al., 1999 [1].

The issuance of cards to the low-income was higher than other types of the underprivileged and this shows that income has been used as a means to target for years. Using more precise characteristics such as age may raise the question of whether

the target groups were poor enough to have the cards so the application and issuance of cards had low achievements. Bangkok was the least in issuing all card types (overall average was two percent of all types of targets), because the community process in Bangkok was weak, and perhaps the target groups did not place any value in having any kind of card. At the moment, the evaluation for effective coverage and correct target rates is underway.

5.2.4 Qualitative perspectives

Previous experiences show that issuing low-income cards is difficult. Recommendations from previous research always say that the community mechanisms should be applied to the selection processes of the poor. However, when community leaders in the focus group were asked to comment on this issue, their ideas were divided:

'There are no other mechanisms. We know who are poor and who are not. But the final decision to refuse card issuance should be made by the authorities concerned, not us' (Community leader, Ayutthaya urban area)

'In the village, practically every member is related in one way or another. There are no criteria to say who is wealthy or who is poor enough to receive welfare. The best way is to make every body equal' (Community Saving Fund, Songkhla rural area)

'The municipality tried to ask community leaders to look for the poor and give them low income cards, but they did not do that effectively. They submitted the names of their relatives. And then we had to check their family histories.' (Mayor, Hat Yai Municipality)

If targeting the poor is difficult, the other alternative is to link card issuing with the financing mechanism of the local government. This issue is very receptive to local politicians and community leaders who work at the community savings fund. Some politicians observed that the central government had given the local government a capitation budget (150 baht per head) under the budget line called 'general subsidy'. This is possible if the central government increases the subsidy budget and assigns the local government to oversee the health care of the poor. If the budget allocated is not sufficient, the local government may mobilize other funding by seeking approval from the local parliament. Community leaders from the savings fund realized that they were already paid 70 percent of the medical bills from government facilities out of the dividend of the community savings fund.

Expanding targets of the LICS to cover other underprivileged groups led to confusion of policy objectives. Many members felt that the people should be counted as family members and not by their personal characteristics. For example, the elderly from the poor families should be categorized as the poor, and only the poor elderly should be the target of the LICS. The same principle should be applied to children under 12, students, the handicapped and religious leaders. This principle will trim down the target of the LICS by at least a third. However, this may conflict with the direction in which the country is heading - i.e. for universal coverage in health security.

The following recommendations have been drawn:

- For short-term goal, the criteria for determining the underprivileged should be based on family income and a few other social characteristics.
- For medium term, the issuance of the cards to the underprivileged should be linked with the financing of the underprivileged.

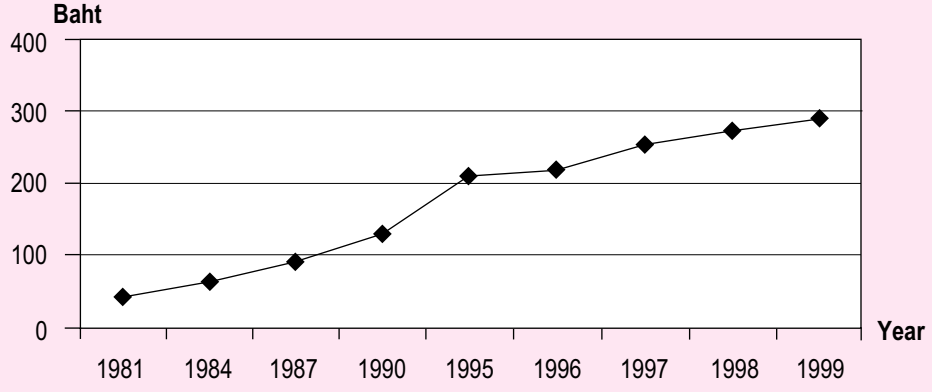
5.3 Equity in health and health care system in Thailand

This section deals with the equity of health care, which includes financing, budget allocation of the LICS and utilization. The first part of equity in health care (financing) is discussed in detail while little information deals directly with equity. As the schemes have been expanded rapidly, questions arise whether the schemes are under-funded. This is the important underlying cause of inequity in health care utilization and health status.

5.3.1 Government budgets for the LICS

The LICS received a government budget of 520 million baht (1976) and almost 9 billion in 2000. The budget for the LICS was stable from 1976 to 1989, since then it has increased significantly. In terms of budget per capita, the 1981 budget was only 42 baht per capita. In 1990, when the budget almost doubled that of the previous year, the budget per capita was 131 baht. In 1995, when the number of the LICS increased, the budget per capita also increased to 212 baht. In 1999, if the number of the LICS targets is used for calculation, the budget per capita was 287 baht (see Figure 5.1). However, if the number of cards issued is used instead, the per capita budget would increase to 450 baht.

Figure 5.1 Per capita budget (baht) for the LICS, from 1981 to 1999.



Source: Donaldson D, et al., 1999 [1].

5.3.2 Expenditure of the LICS

Reported figures of expenditure from public facilities are shown in Table 5.4. In 1987, before a sharp rise in the budget, reported expenditure was almost three times the amount of the budget. In 1991, holding the number of LICS rather constant with a sharp increase in budget, the expenditure was only 18 percent higher than the budget. In 1997, when the coverage of the LICS increased by 2.2 times, the budget increased three times; and the expenditure increased almost four times (42 percent higher than the budget). In summary, the expenditure per capita increased from 270 baht in 1987 to 361 baht in 1997.

Type B low income patients play a significant role in the delivery of care under the LICS. Before the expansion of coverage to the underprivileged, expenditure of type B was 47 to 57 percent higher than the expenditure of the low income card holders (type A). In 1997, this was reduced to 19 percent of the expenditure of all

Table 5.4 Budget and expenditure of LICS.

Year	Budget	Expenditure	Type A	Type B	%B to A
1987	705,839,500	2,051,856,237	544,333,212	799,142,659	146.81
1991	2,000,000,000	2,345,067,875	792,284,130	1,242,007,631	156.76
1997	6,370,524,000	9,018,341,515	7,201,858,337	1,400,416,130	19.45

Note: The sum of type A and type B not equal to expenditure because many other types are not shown.
Source: Donaldson D, et al., 1999 [1].

types of the underprivileged. It should be noted that type A expenditure increased more than type B because of expansion in the coverage. However, type B expenditure had not been reduced.

Estimated per capita expenditure by using reported data is shown in Table 5.5. The utilization data and rates can be estimated by applying the number of the covered persons under each scheme from Table 5.3. The elderly on average made 3.9 visits at outpatient services each year, and were admitted 0.18 times a year. A visit by an elderly cost about 108 baht, and hospitalization cost 3,889 baht. The per capita expenditure of the elderly was therefore the highest at 1,110 baht. Second on the list was per capita expenditure for the disabled, 965 baht, because of high admission rate. On average, per capita expenditure for the LICS in 1998 was 470 baht, higher than the approved per capita budget of 273 baht. However, this is similar to the adjusted per capita budget for 1999 of 450 baht.

Table 5.5 Utilization rates, charges per case and per capita expenditure in baht, 1998.

	N	OP/yr	IP/yr	LOS	B/OP	B/IP	B/cap
Low-income	5,792,797	1.27	0.05	5.93	88.09	3,806	290
Children 0-12	6,918,604	2.98	0.11	6.20	54.89	1,845	366
Student	1,419,077	1.17	0.03	3.73	53.63	2,033	123
Elderly	3,125,406	3.91	0.18	5.76	107.54	3,889	1,110
Disable	184,286	2.42	0.20	33.92	142.46	3,167	965
Veteran	105,144	3.21	0.08	5.94	141.40	3,722	755
Monks	333,031	2.15	0.14	7.40	154.40	3,817	877
Total	17,878,345	2.43	0.10	6.57	78.51	2,911	470
CSMBS	7,000,000	2.6	0.08				2,500
SSS	5,000,000	1.4	0.05				1,200

Source: Donaldson D, et al., 1999 [1].

The above expenditure did not include expenses for type B low income group because it was not known how many people should be used as the denominator of the additional 19 percent of type A expenditure. Neglecting type B expenditure would be haphazard because this is the outlet for the poor who have no card, and the non-poor who face acute health expenditure.

5.3.3 Resource allocation

The problems of under-funding in the LICS has deteriorated on account of inequitable allocation of budget among the provinces. In 1988, per capita budget allocated to the northeast was 54 baht as compared to 76 baht for the wealthier central

region (disparity index between the highest to lowest was 1.4). In 1990, when the budget was almost doubled, the disparity between the highest and lowest increased to 4.1. This large disparity index continued in 1994.

Table 5.6 Per capita budget (in baht) allocated to regions.

	1988	1990	1994
Northeast	54	193	132
North	56	284	194
South	66	472	323
Central	76	787	539
Central: Northeast	1.4	4.1	4.1

Source: Donaldson D, et al., 1999 [1].

Disparity exists because of disproportionate distribution of type B low-income patients in the provinces and regions. Before 1995, when the coverage of the LICS had not been expanded, type B patients determined the big portion of resource allocation. About 40 to 50 percent of the total budget was allocated according to workload, because this was a better indicator of the use of services by type B. During 1996 to 1997, resource allocation formulae were used as a tool to distribute to the low-income budget. When the Office of the Budget insisted that the low-income budget should be distributed to the LICS only and budget for type B patients be identified under item 300 of the Rural Health and Provincial Hospital Divisions, the policy of allocating the LICS budget was changed again. The MoPH proposed a full capitation model in the year 2000, by strengthening the registration of the underprivileged to primary care providers. It will take three years to move to full capitation by applying a 50-50 percent share in 1998 and a 75-25 percent share for capitation and workload in 1999 (see Table 5.7).

Table 5.7 Weights given for allocation of the LICS budget.

Year		Weights given for
1990-1991	60%	The number of LIC
	40%	Use of service
1992-1993	50%	The number of LIC
	50%	Use of service
1994	45%	Use of services
	20%	The number of population
	20%	The number of LIC
	10%	The number of health facilities
	5%	Specific problem in the province
1995	50%	The weighted number of workload
	25%	The number of LIC
	20%	The number of population
	5%	Preventive and promotive activities
1996	-	Pop adjusted by SMR, OP visit, IP days,
		Average income, Availability of regional hospital

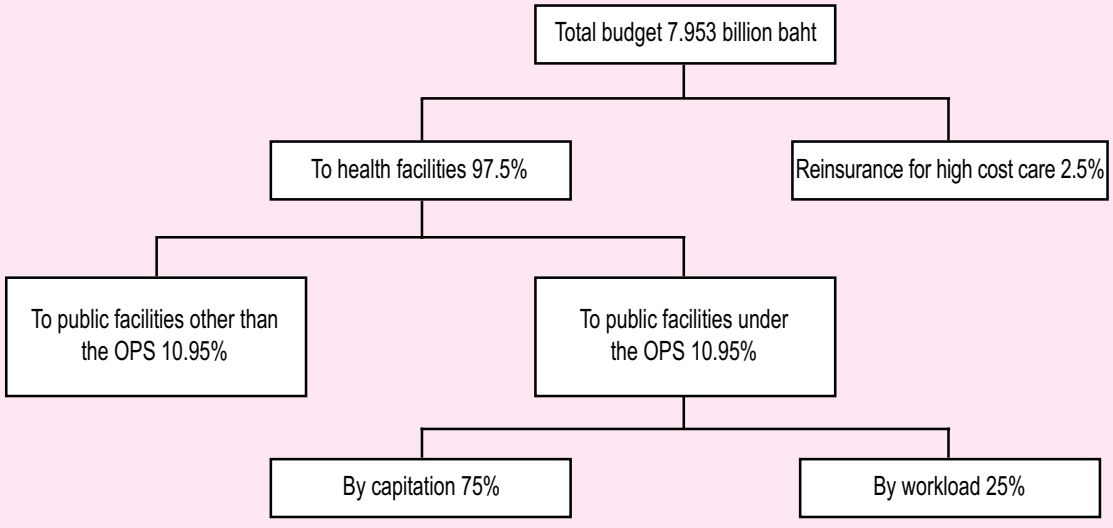
Table 5.7 Weights given for allocation of the LICS budget. (cont.)

Year		Weights given for
1997	-	Number of LIC
		Weighted number of OP, IP cases
1998	50%	Capitation rate
	50%	Utilization of services
1999	75%	Capitation rate
	25%	Utilization of services
2000	100%	Full capitation

Source: Donaldson D, et al., 1999 (1).

In 1999, the MoPH proposed to allocate a budget of 7.95 billion baht as outlined in Figure 5.2. As usual, a 2.5 percent was put aside for reinsurance policy. The rest of 97.5 percent was for all public health facilities.

Figure 5.2 Allocation of the low income budget in 1999.



Source: The Health Insurance Office, 1995 (10).

As the Office of the Permanent Secretary (OPS) owns a large network of health facilities outside Bangkok, 86.55 percent of the total budget is the main source of allocation to 75 provinces. In 1999, 75 percent of OPS budget was allocated by head counts of cardholders, and 25 percent allocated according to workload. The capitation rates were set differentially according to per capita expenditure in Table 5.5. As mentioned before, the targets for all types of cardholders were set centrally[3], the performances of card issuance varied from type to type and from province to province. Provinces have incentives to issue more cards because they were expected to have a higher capitation budget without any financial contributions. A compromise of information sources would help to solve this problem.

3 Targets for the low-income cards calculated by the new poverty lines for individual provinces, the elderly, children 0-12 by the NESDB's population projections, the monks by statistics of the Ministry of Education, the handicapped by the Ministry of Interior.

The three steps to determine allocation of budget by workload is firstly to weigh the previous year's outpatient services and compare them with the standardized outpatient weights[4] for the different levels of care. Secondly, weighting the previous year's inpatients with DRG relative weights[5]. Thirdly, converting reported figures on cost expenditure by multiplying it with the cost to charge ratio[6], then constructing a model to allocate the budget according to the weights of outpatients and inpatients.

5.3.4 Resource allocation formula

In 1996, the MoPH started to adopt a regression model to allocate the low-income budget to provinces to guarantee equitable allocation. The regression was developed on the observations that in 1992 [(8)], the non-labor recurrent budget to provinces (BG1) was a function of both demand and supply variables. The only demand variable was the number of population adjusted by standardized mortality ratio (SMR) (Pop_{adj}) of each province. The supply variables included the number of days at the community hospital (LOSC), the number of days at the provincial hospital (LOSP) and the number of outpatient visits at the community hospital (NOPDC).

The second model to predict non-labor recurrent budget plus the low-income budget to the province (BG2) was a function of demand and supply variables. The average income of people in the province (Y) was the second demand variable. The new supply variable was the total revenue (REV) raised at the provincial hospital.

$BG1 = 5\ Pop_{adj} + 88\ LOSC + 98\ LOSP + 9\ NOPDC + 2.0$ million r-square = 0.96

$BG2 = 17\ Pop_{adj} - 192\ Y - 0.3\ REV + 243\ LOSC + 141\ LOSP + 41\ NOPDC + 95\ NOPDP + 7.0$ million r-square = 0.93

$BG3 = 114500\ NBEDP - 246\ Y - 0.2\ NREV + 438\ LOSC + 67\ NOPDC + 227\ NOPDP + 22.0$ million r-square = 0.97

The third model predicted the recurrent budget (including labor and the low income), this model was heavily dominated by supply variables, and e.g. number of beds at provincial hospital (NBEDP), net revenue of provincial hospital at the year-end (NREV).

1996 was the first year that the MoPH developed a resource allocation formula for low-income budget. The formula was developed on the information of the past year expenditure of the LICS (EXP), the number of population adjusted by SMR (Pop_{adj}), number of outpatient visits (OPD), days of stay in the hospital (LOS), the presence of regional hospital (R) and the average income of people in the province (Y).

The modification of the 1997 model was to put standardized weights for outpatient visits and inpatient cases at different levels of health facilities (according to outpatient weight and DRG weights as presented earlier). The budget was determined by the number of the low income (insured) and the weighted number of OPD and IPD.

4 The standardised outpatient weights for 1997: health center 0.48, municipality 0.69, provincial health office 1.20, community hospital 1.46, general hospital 2.24, referral at general hospital 2.63, regional hospital 2.84, and referral at regional hospital 2.86

5 The standardised DRG weights for inpatients: community hospital 0.6736, general hospital 0.833, and regional hospital 1.0763

6 Cost to charge ratio: health center 1, community hospital 0.93, and general/regional hospital 0.88

1996 EXP = 14,085,039 + 39Pop_{adj} + 3OPD + 353LOS +9580R -139Y
1997 Cost = 13,290,178 + 130 Insured + 340 OPD + 550 IPD

The results of resource allocation formula, the disparity index was reduced from 4.1 to 1.4 in 1996 and further to 1.2 in 1999 when the 75 percent capitation rate was applied.

Table 5.8 Per capita budget (in baht) allocated to regions.

	1996	1997	1998*	1998**	1999
Northeast	140	168	219	205	264
North	193	237	283	263	306
South	160	206	256	239	273
Central	183	235	282	258	316
Central: Northeast	1.38	1.41	1.29	1.16	1.20

* use old figures of insured people.
** use new figures of insured people.
Source: Donaldson D, et al., 1999 (1).

5.3.5 Reinsurance reimbursement

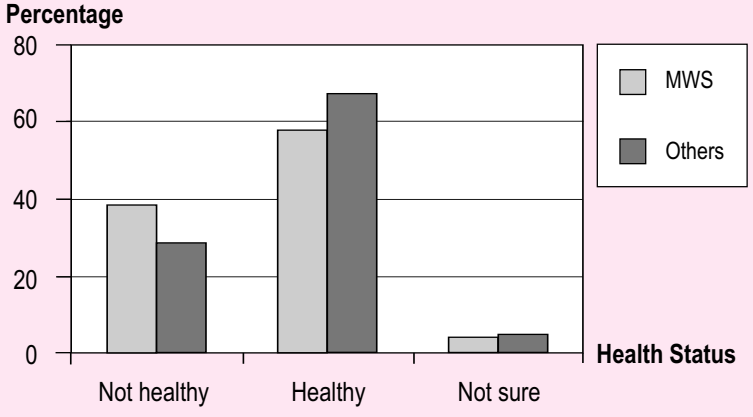
The reinsurance policy for 1998 was substantiated by hospitals sending their inpatient electronic data to the Health Insurance Office to be reimbursed. A 2.5 percent of the LICS budget for reinsurance of high cost care was retained for reallocation to health facilities based on grouping of the data into diagnosis related groups (DRG) with the attached relative weight. More than 1.6 patient records from 109 public hospitals were analyzed. Out of those 1.6 patients, about 20 percent were the LICS and 4 percent of the LICS were high cost cases according to the relative weight on a DRG basis. Even though there were more than a thousand public hospitals and about 5 million inpatients a year all over Thailand, the compilation of these data that linked with some sort of financing looked promising (see details in DRG chapter).

5.3.6 Inequity in health

The final outcome of health care is the health status of the people. Data from the national health exam survey in 1996 were able to illustrate the health status of people by health benefit schemes. The questionnaire asked adults to express their health state as healthy, not healthy or not sure. This kind of question is comparable to the question in WHO QOL (the quality of life questionnaire of the World Health Organization) used to assess health status. The result is shown in Figure 5.3.

Adults are classified into two groups, those covered by the medical welfare scheme and others (covered by other schemes and the uncovered). On average, more people under the medical welfare scheme reported that they were unhealthy as compared to the other group and fewer people reported that they were healthy. Though, this was a cross-sectional study on the state of health, it could be concluded that the health status of the underprivileged was lower than the health of the privileged. Presently researchers are analyzing whether the unhealthy status of the underprivileged is caused by the under-funded low-income card scheme.

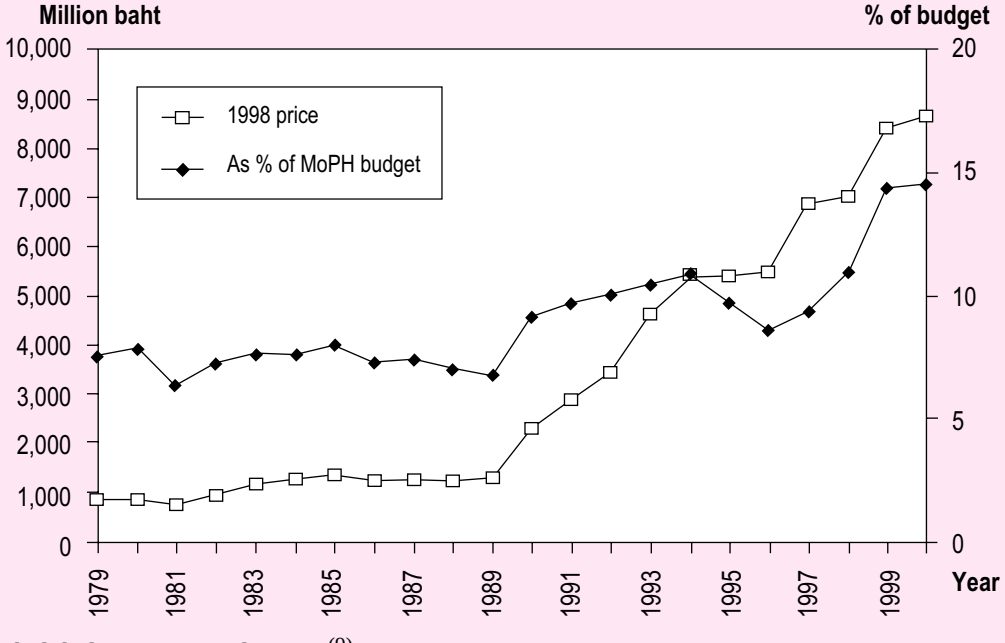
Figure 5.3 Self-reported health status of people under the Medical Welfare Scheme (MWS) and others (calculated from the National Health Examination Survey 1996).



5.4 Economic crisis and public policy of protecting the poor

Since the 1997 economic crisis, there have been concerns that the health status of the poor would be jeopardized. The MoPH set up a Health Intelligence Unit to monitor changes during the crisis. Short descriptions of the changes are as follows [9]:

Figure 5.4 The low income budget in 1998 baht and as % of the MoPH budget.



Source: Wibulpholprasert S, et al., 2000 [9].

- A reduction in per capita income was observed, hence the incidence of people under the poverty line has increased. The incidence of low birth weight also increased, as well as an increase in malnutrition among school children and anemia in pregnant women.
- The positive changes that were observed included a reduction in alcoholic consumption, and a reduction in deaths related to road traffic accidents.

- In terms of health utilization, there was an increase in self-care, a reduction in per capita out-of-pocket expenditure on health. However, utilization at public health facilities rose at the expense of the reduction in utilization at private health facilities.

Since the climate to push for the universal coverage policy is stronger during the economic crisis, the budget for the low-income scheme has not been disturbed (see Figure 5.4). Accordingly there is a rise in the purchase of voluntary health cards and the welfare of the poor has been well protected.

5.5 Current reform initiatives and future challenges

In summary, the following are the efforts made so far for the LICS:

5.5.1 The new differential poverty lines were applied as the means test.

Applying the new differential poverty lines for each area in the provinces has caused a few problems. Some provinces were more active than others in issuing the cards in order to get a high capitation fund. This process needs a more thorough evaluation to determine whether the next round of card issuing (in 2001) should be based on the same methodology. However, the issuing of the card should be decentralized to the local government and linked to the funding.

5.5.2 An information system should be set up to count the number of those eligible for each scheme.

To respond to the request of the Office of the Budget, the Health Insurance Office is establishing an information system to count the number of the people enlisted under the LICS. This system must deal with a large amount of data and therefore it cannot be completed within a short period. Again, evaluation of this system is necessary for designing the next round of card issuing.

5.5.3 A registration system should be set up so that each individual can register at a primary care center.

A good registration system for cardholders is needed to allocate resources on a capitation basis to primary care providers. Allowing people to choose their primary care providers is a good way to educate them to follow the referral line.

5.5.4 Allocation of LICS to provinces.

A target for allocating the budget to provinces on a full capitation basis by the year 2000 has already been set up. Subsequently the LICS budget will be allocated to provinces on a full capitation basis by the year 2000. The problem of cross-boundary flows have to be critically evaluated if the capitation rate is to be utilized down to the district level.

5.5.5 Reinsurance policy has been strengthened and a case-based information system has been established.

In 1998, the Health Insurance Office experimented with the reinsurance policy for high cost cases on a case-based information system. Once this system started, the quality of the data improved and the utilization data could be accurately compiled for the whole country, breaking down to each level of care.

5.5.6 This network should be extended to teaching hospitals.

Allocating the budget to the province on a capitation basis means that the province has to be responsible for any referral case to the teaching hospital. Traditionally, the teaching hospital receives the low-income budget directly from the Office of the Budget. Consequently the capitation budget to the province shows signs of the shifting of the budget through the provincial mechanisms. The MoPH was successful in negotiating with the teaching hospitals and whenever the medical welfare patients are referred to the teaching hospitals, the provinces will pay for the referrals on a DRG basis with an additional 15 percent base rate. However, in practice many teaching hospitals were uncomfortable with the payments through the provinces and tried to set up their own means test to the eligible patients.

5.5.7 Draft a law using a 'universal coverage' approach.

The attempts to move towards universal coverage have been around since the 1993 conference. One attempt has been focused on drafting legislation as a means to achieve it. In the political mapping study, there was no consensus as to whether or not a law could be an important strategy to achieve universal coverage.

5.6 Policy recommendations

5.6.1 Short term policies:

Under funding is the main problem of the LICS. Policies on the LICS were expanded rapidly to cover both the poor and the underprivileged. Though the budget per capita also increased each year, under funding still exists as compared to other public insurance schemes. Short term policies to counteract under funding are as follows:

- Increase effectiveness of coverage by applying the new poverty lines as a means test for distribution of the card.

  This policy recommendation is already undergoing a field test. It is worth evaluating how effective the differential poverty lines are in selecting the poor. Whether or not the list of the poor is smaller or larger, the government will be more willing to allocate adequate budget for the poor.
- The local governments should distribute the cards and card issuance should be linked to funding.

  When the local government becomes the distributor of the low-income card, card issuance should be linked to the financing of the LICS. This will make the issuer accountable for the system. It should be mentioned again that financing the scheme here is only one part of the total scheme. Whether or not it covers only copayments, or a percentage of the capitation rate, this should be researched in greater detail.
- Those eligible for the LICS should register with a primary care provider, and referral patterns from the district to the provincial level should be reinforced.

  To be in line with other capitation schemes, the LICS registers to a primary provider, and referral line must be practiced. At least copayments will be charged if the cardholder bypasses the facility.
- MoPH finances the LICS on a weighted capitation basis, a good information system should be set up to facilitate resource allocation.

When the allocation of the LICS budget has reached the full capitation, the capitation rate must be weighted to reflect health needs, e.g. age, sex characteristics. The information systems that are being set up now will be a good basis for resource allocation for both demand and supply sides.

A budget line for catastrophic illnesses for those who are excluded from the LICS should be set up.

When the non-poor groups have been excluded from the LICS, a catastrophic budget has to be in place to provide protection for the rest of the population. In the long run, this population group will be taken up by the universal coverage policy. The system should be designed to comply with the long-term goal.

5.6.2 Long term policies:

The voluntary based insurance scheme needs to be expanded to reach the universal coverage [(2)]. To differentiate the cost recovery scheme with the public welfare is only a short-term strategy. Merging the VHCS and the LICS, and decentralizing the targeting process to the local governments to reach universal coverage is the main feature of the long-term policies:

- Universal coverage is financed by a mix of general tax, property tax or other taxes

  In the end, when the VHCS merges with the LICS, this will become a compulsory scheme for all, (apart from the CSMBS and the SSS). Sources of finance flow from the general tax for the public welfare scheme and additional property-linked tax raised by the local governments. Since the money raised by the card sale will whither away, additional property or a new tax scheme must make up for the loss. Equity and efficiency (stability and sustainability) of this new financing source must be considered.
- Copayments and annual maximal household liability

  User fee is the most inequitable source of finance for health because it is always regressive to household income; the main target of universal coverage is to move away from user fee dependence. During the short-term policy, copayments have been introduced, to safeguard the chronically ill and the big household from paying endless copayments; a threshold of the accumulative annual copayments for each household can be set. If the threshold is reached, further copayments will be exempted for the period of 12 months. The low income are still exempted from the copayments scheme, provided that the local governments will pay on their behalf through card issuance.
- Choice of services: public and private sector, with or without subsidy

  The provision of the VHCS and LICS has been limited to the public sector and the Ministry of Public Health only. When the universal coverage is in place, the monopsonistic power (the privilege of the big purchaser who can control the market price) will be built up at the National Health Financing Authority. By then, all the public as well as private facilities, which rely on public funding have to join in and choices of services provided to consumers. Choices mentioned here are linked to institutional arrangements, i.e. choice to register with enlisted public or private primary care providers annually, choice to be referred to any secondary or tertiary

health services or choice for opting out to less subsidized health care based on luxury.

5.7 Conclusion

The Low-Income Card Schemes in Thailand have provided a good protection to the poor since its inception, even though there may be problems of targeting and financing. However, there is evidence that inequity in terms of quality of care among the poor exists because of under financing. Measures to improve the schemes have been going on, for the demand side and supply side. Long term policy package under the universal coverage policy will be the ultimate goal of scheme restructuring.

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CHAPTER 6

The Health Card Scheme: A subsidized voluntary health insurance scheme

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A subsidized voluntary health insurance scheme, the health card scheme aims to ensure accessibility to care for those in the informal sector e.g., farmers, street vendors, private car drivers, workers uncovered by the Social Security Scheme, the self-employed etc. For survival, the scheme had to be adjusted many times during 18 years of implementation. It was recently divided into three types of cards - the voluntary health insurance card, the community leader card and the health volunteer card. The two latter cards are free cards that are intended to provide medical welfare for those who contribute to society and their families. This chapter will focus on the voluntary health card since the latter two are not voluntary insurance. The following details of the scheme will be provided: development of the scheme, trends and coverage, characteristics of beneficiaries, and problems of the scheme including, efficiency, equity, and sustainability.

6.1 Development of the scheme

The scheme emerged as a response to WHO "Health for All" policy. Established in 1983 as a community-financing scheme, it aims to complement the activities of the mother and child primary health care (MCH) and the basic essential treatments [1, 2]. Initially a low-priced prepaid health card was experimented to raise funds for the Village Mother and Child Health Development Fund. Buyers of the health cards were entitled to free care for simple treatments, MCH and vaccinations. It was experimented for eight months in seven provinces and was briefly evaluated. The Ministry of Public Health (MoPH) set the target for the second phase to expand the health card to at least one sub-district in each province (1985), then, to all districts of each province (1986), and later to all sub-districts at the end of 1987 (see Table 6.1). To support the primary health care policy and various other objectives, the funds were managed at the community level as a revolving fund. They were retained in the communities providing loans for members to build latrines and collected back to pay health facilities at the end of the year.

Initially, at least 70 percent enrollment households were required. Target enrollment households were later reduced to 30 percent according to top down policy to expand the scheme to cover all sub districts. Two types of cards were provided, the MCH card and the family card for curative care that entitles users to eight episodes of treatment with a ceiling of 2,000 baht per episode.

Because of unclear MoPH policies, the scheme began to phase down in 1987. None of the three successive Permanent Secretaries of Health made any explicit policy on the scheme. Consequently the provincial health officers were unsure about the fate of the scheme (3). By this time most funds did not provide leasing for their members and retained money at health centers instead of in the communities. The principle of the health card was changed from community financing to voluntary health insurance and was renamed 'the voluntary health insurance project'. It was not until 1993 that the scheme received government subsidy in the form of an annual matching fund on the same principle as the Social Security Scheme[1].

The fourth phase of the health card began in 1994 when it was changed into a national public subsidized voluntary health insurance. The government gave an annual matching fund from the tax revenue (4). It then subsidized the scheme at 500 baht a card for each household. The scheme is presently managed like a revolving fund with a reinsurance policy aimed at distributing risk at the central level. This facilitates portability of health benefit for migrant cardholders and risk sharing among provincial funds. A 2.5 percent of 1,000 baht is deducted from each card sale to the central fund to pay for cross-boundary services incurred at different provinces and high cost services within the same or at different provinces on a retrospective fee-for-service basis with a ceiling. Benefit packages of the scheme were also increased to no limitation of utilization episodes and up to five family members could be covered. It also provided direct access to community hospital and portability of health benefit for migrant cardholders. Coverage of cards was rapidly increased according to MoPH policy of 100 percent insurance coverage. Accordingly, the card was used as a tool to provide health benefits to those who were not poor and uninsured both in rural and urban areas. An intensive mass media advertisement in addition to promotion campaigns in provinces and villages were implemented.

When Thailand went into economic recession in 1997, the scheme became financially unsustainable. Reduction of household income increased the demand for the cards. The MoPH was unable to respond immediately because of limited funds and hospitals lost incentives because of low cost recovery. Card promotion was thus halted. Finally, the government decided to increase the matching fund from 500 to 1,000 baht per card instead of increasing the price but limited annual card selling to not more than three million cards (5). The scheme was geared to be a welfare oriented concept rather than an insurance oriented one. With increased subsidization, the government called for better targeting and more sustainable strategies. To exclude the better off from the scheme, private hospital room is prohibited for all beneficiaries[2]. If cardholders would like to stay in private rooms, they have to pay the full costs. To reduce adverse selection and improve sustainability, a validation time before entitlement to the benefit package has been increased from 15 to 30 days. In addition, reimbursement of cross-boundary cards has to be charged directly to the provincial funds of the cardholder instead of the central fund. This is intended to prevent misuse of the card (issuing cross-boundary cards instead of providing referral letters) (6). To improve management efficiency of reimbursement for high cost cases (a case-based payment) Diagnosis Related Group Development (DRG) has been

1 Thailand has introduced a compulsory health insurance scheme under the Social Security Act 1990. This scheme is financed equally by three sources: employees, employers and tax revenue.

2 This benefit was switched back again in 2000 during former director, Dr. Staporn Wongchareon

introduced to replace the fee-for-service reimbursement system. A summary of the scheme development is provided in Table 6.1.

Table 6.1 Main characteristics of the health card scheme since 1983.

Phase I 1983	Phase II 1984-1986	Phase III 1987-1991	Phase IV 1993-1998	Phase V 1999-
Conceptual framework				
● MCH & FP (community financing)	● Primary health care (community financing)	● Primary health care and voluntary health insurance	● Voluntary health insurance	● Public subsidized voluntary health insurance
Policy objectives				
● To achieve target in MCH and FP ● To improve referral system	● To support PHC ● To improve referral system ● To integrate health services ● To change the role of health providers to be health facilitators ● To downsize outpatient services of large hospitals	● To provide health security ● To support primary health care	● To provide health security ● To achieve near universal coverage	● To provide health security ● To achieve near universal coverage
Target population				
● 18 villages in 7 provinces:	● At least one sub-district in all provinces, and two villages in each sub-district ● From 70% of village population and reduced to 30%	● All provinces ● Covering all districts in each province 30% of total population	● All provinces ● Sub-group of population with no health benefit coverage and may suffer from health care cost	● All provinces ● Sub-group of population with no health benefit coverage and may suffer from health care cost
Card prices				
● Treatment & MCH B200 ● Treatment B100 ● MCH B100	● Family card B200 ● MCH B100	● Family card B300 ● Individual card B200 ● MCH B100	● Family card only ● B 1,000; equal matched by government and cardholder	● Family card only B 1,500; 2/3 from government and 1/3 from cardholder
Benefit limits				
● Not established	● 8 illness episodes per card and capped to B2,000 per episode	● 6 illness episodes per card and capped to B2,000 per episode	● No limits of episode nor capping ● Including MCH ● Reinsurance policy for high cost care and and cross-boundary card	● No limits of episode nor capping ● Including MCH ● Reinsurance policy for high cost care and portability card

Source: Adapted from Singkaew, 1993 [2].

6.2 Trends and coverage

The trend of card coverage is a U-shaped pattern that rapidly expanded during the second phase and phased down during the third phase because of MoPH's unclear policy. It began to rapidly increase again from 1993 onwards when MoPH reformed the scheme into a voluntary health insurance scheme; subsequently the government started to provide a matching fund. Factors that determined rapid increase during this phase include the 100 percent coverage policy of MoPH, mass media advertisement, comprehensive package with direct access to district hospital and portability of insurance, and a 25 baht per card incentive for card sellers. The scheme was expanded to Bangkok during this phase to provide insurance benefits for uninsured persons in the informal sector.

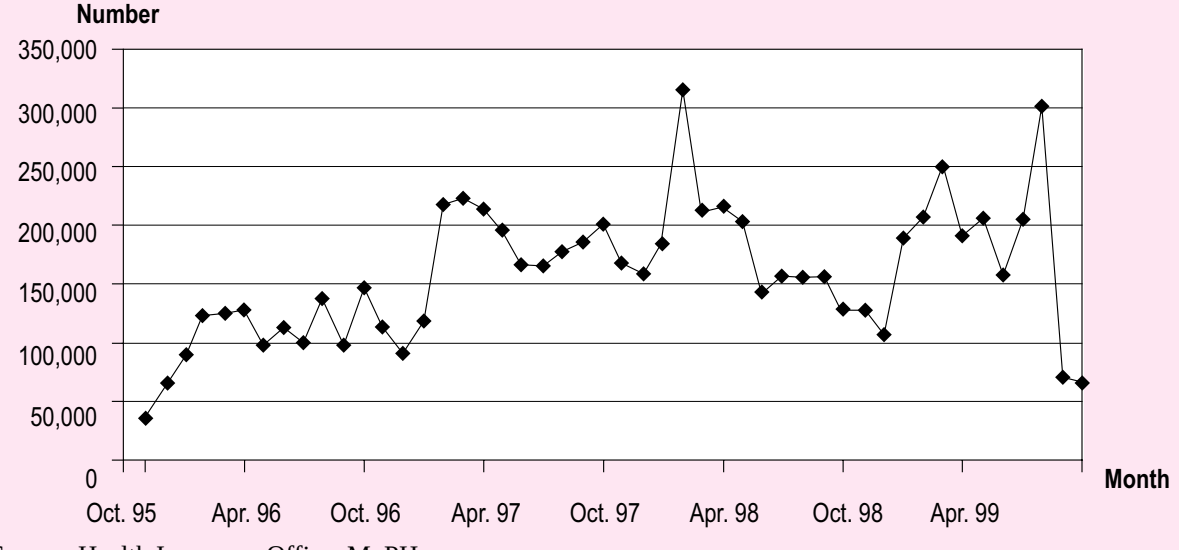
Table 6.2 Coverage of health card and revenue raised from 1987 to 1997 at current price.

	1987*	1988*	1991	1992	1993	1994	1995	1996	1997	1998	1999
Card sales (million)	0.66	0.46	0.30	0.29	0.49	0.81	1.46	1.24	2.06	2.17	2.05
Population covered (million)	2.69	2.11	1.40	1.32	2.08	3.44	6.21	5.27	8.24	7.59	6.58
% population covered	4.7	4.5	2.7	2.6	3.7	6.1	10.8	9.1	13.5	12.4	10.9
Revenue raised, million baht	183.0	119.8	84.02	81.23	244.8	403.0	727.8	622.4	1,003.0	1,084.5	1,027.1
Matching fund, million baht	None	None	None	None	50.0	200.0	655.6	617.1	1,003.0	1,084.5	2,054.1

Note: * Kiranandana T, et al., 1990, and Health Insurance Office, MoPH.

When Thailand went into the economic recession period in mid 1997, the baht currency was devalued by more than 100 percent [3]. Because of less income in households, there was a shift of demand for medical services from the private sector to the public sector [(7)]. The number of card sales increased markedly during the second half of fiscal year 1997 and the beginning of fiscal year 1998 (Figure 6.1). The decreased

Figure 6.1 Number of card sales from October 1995 to September 1999.



Source: Health Insurance Office, MoPH.

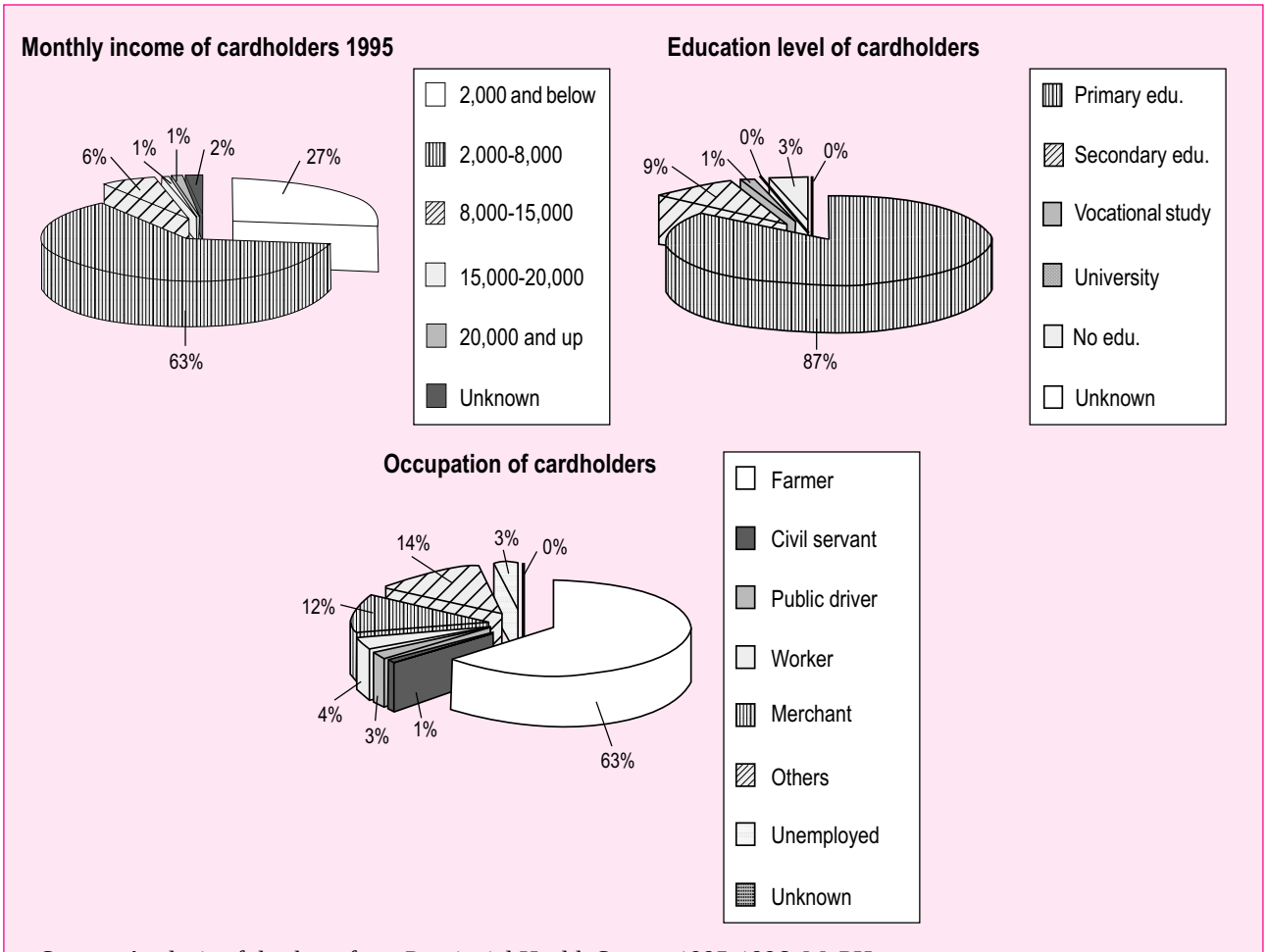
[3] Exchange rate US$1 was equal to B25, 31.36, and 41 in 1996, 1997 and 1998 respectively.

number of card sales in the second half of fiscal year 1998 was due to MoPH policy to limit the number of card sales and hospital disincentives. Increased public subsidy provided more incentive for card selling. This may not be very much since the 25 baht incentives provided for card selling was abolished [8].

6.3 Target population and beneficiary characteristics

The target population of the scheme includes those who are not covered by any public health scheme particularly those who are neither rich nor poor and might face large financial burden from illness or become debt ridden. These include farmers, fishermen, blue-collar workers in small enterprises, public drivers and street vendors, etc. These people were the true beneficiaries of the scheme and were more concerned when the government increased subsidy to the scheme. On account of being more welfare oriented. Data from the Health and Welfare Survey conducted by the Office of the National Statistics in 1996 [9] shows that overall coverage of the scheme was 15.34 percent which was higher than the figure from MoPH in Table 6.2. In addition, 68, 23, and 9 percent of beneficiaries were living in villages, sanitary districts, and municipal areas respectively. The highest proportion of population coverage was in the north and northeastern regions, 25 and 21 percent, followed by the south, 17 percent and lowest in the central region, 6 percent.

Figure 6.2 Beneficiary characteristics of the health card scheme, 1996.



Source: Analysis of database from Provincial Health Survey 1995-1996, MoPH.

The majority of cardholders were valid according to the scheme's target population - mainly those with a primary education, lower and middle income earners and farmers (Figure 6.2). Twenty seven percent of cardholders claimed that their monthly income was lower than 2,000 baht which was lower than the poverty line set by the Medical Welfare Scheme (MWS scheme for the poor). If household income was not under-claimed, this scheme was a safety net for the poor who are uncovered by the MWS. Duplication of health benefits was also identified in civil servants, three percent of whom had health cards and accounted for 1 percent of other cardholders. These cardholders did not have to pay for service use but they had to reimburse their payment for outpatient care in the Civil Servants Medical Benefit Scheme (CSMBS).

The study of cesarean section cases in Thailand conducted in all provincial hospitals found that 35 percent of delivery cases were cardholders and 38 percent were private care mothers who gave birth to infants by cesarean section [10] and stayed in private rooms. Once patients stay in private rooms, they should pay their own medical bills. These private-care mothers are in fact benefit-takers.

In Bangkok and the central region, the scheme was under-coverage. One study conducted in a slum area in Bangkok showed that only 30 percent of slum dwellers received health benefits and the card covered only 1.3 percent of slum dwellers [11].

6.4 Utilization

The utilization rate during the second and third phase was low according to the limited number of visits (six episodes per card), and a strict referral system. Usage rate was doubled when the scheme provided free access to community hospitals and no limits on frequency of hospital visits. The average outpatient visit per person per year was two to three visits and 10 percent annual admissions per beneficiary. Compared to the Social Security Scheme (SSS) [12], outpatient use of the health card was doubled while inpatient use was tripled. This can be explained by the different age structure of population groups of both schemes.

Those beneficiaries under the SSS were younger and healthier. The utilization rate of the card was also higher than the general population particularly utilization of

Table 6.3 Utilization rates of health cardholders, compared with other schemes.

	1988 [a]	1991 [b]	1992 [b]	1994	1995	1996 [b]	1996	1997	1998	1999
Health card OP/person/year	1.07	2.8	0.93	3.03 [c]	2.04 [e]	3.3	2.21 [e]	2.45 [e]	2.68 [e]	3.15 [e]
Health card IP/person/year	0.05		0.09	0.11	0.09	0.09	0.10	0.10	0.12	0.11
Health card IP day/admission			3.48	3.99	4.33		4.34	4.34	4.25	4.43
SSS OP/person/year			0.78 [d]	1.08 [d]	1.22 [d]	1.5	1.34 [d]	1.52 [d]	1.46 [d]	
SSS IP/person/year			0.036	0.038	0.03	0.05	0.03	0.03	0.03	
SSS IP day/admission			3.74	4.32	4.59					
General pop OP/person/year		2.0				3.1				
General pop IP/person/year						0.06				
General pop IP day/admission										

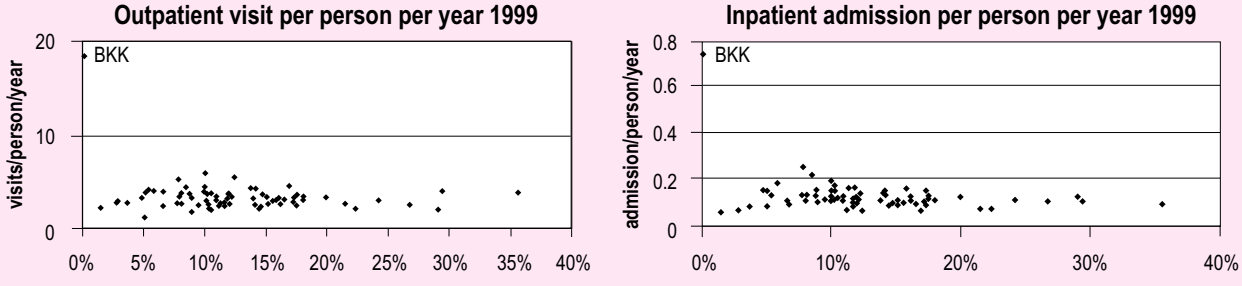
OP = outpatient visits, IP = inpatient admission, IP day = inpatient days

[a] Kiranandana T, et al. (1990), [b] NSO; Health and Welfare survey 1991, 1996 including utilization of all public and private institutions. [c] adapted from Pannarunothai (1995). [d] Social Security Office (1998). [e] analyzed from database of Health Insurance Office, MoPH.

inpatient care even though the card covered more than 10 percent of the population during 1997-1999.

This confirms that either beneficiaries under the scheme are at a higher risk as compared to the general population or there is adverse selection in the scheme. In addition, part of it might come from overuse of services from cardholders when the price of services is zero or subsidized (moral hazard). The utilization figure from the Health and Welfare Survey conducted by the Ofice of the National Statistics in 1996 was higher than the figure from the report of each scheme since the survey figure comprised all utilization, including private institutions and other public institutions outside specific schemes.

Figure 6.3 Utilization rate for outpatient and inpatient care of cardholders in 1999.



Source: Analysis from 1999 database of Health Insurance Office, MoPH.

The utilization rate of Bangkok cardholders in 1999 was highest as compared to cardholders in other provinces - 18 visits per person per year for outpatient care and 74 percent hospital admission rate. However, the figure included referral cases from other provinces. Figures from the report of the Health Insurance Office in 1997 and 1998 showed that 13 and 17 percent of outpatient visits and 51 and 78 percent of inpatient cases of hospitals in Bangkok were referred cases.

After adjusting the utilization rate of cardholders in Bangkok by excluding 15 percent OP visits and 65 percent inpatient cases, the utilization rate would be 15 visits per person per year for outpatient and 25 percent for inpatient admission per person per year. That is still high and confirms that cardholders in Bangkok are high-risk groups. Figure 6.3 shows that there were high variations in the utilization rate for those provinces with below than 10 and 20 percent coverage in 1999.

The majority of outpatient care was utilized at health centers: 50-55 percent, followed by district hospitals, 30-35 percent and provincial hospitals, 15 percent. The proportion of inpatient cases in district hospitals was a little higher than in provincial hospitals but lower for hospital days (Table 6.4).

Table 6.4 Utilization pattern of cardholders between 1997-1999.

	Outpatient services			Inpatient services: cases (hospital days)		
	1997	1998	1999	1997	1998	1999
Health center	55%	50%	54%			
District hospital	31%	34%	31%	52% (38%)	52% (39%)	54% (40%)
Provincial hospital	14%	16%	14%	48% (62%)	48% (61%)	46% (60%)

Source: Health Insurance Office database, MoPH.

6.5 Cost and cost recovery

Tthe cost of services provided per card and cost recovery can be calculated by applying the 1996 average unit cost of service for each level of health facilities studied in 1997[4] [13] to the utilization rate per card of each year. The average unit cost of services provided at each level of care in 1996 was 66, 119, and 236 baht per OP visit at health centers, district hospitals, and provincial hospitals respectively - 1,745 and 4,854 baht per IP case at district and provincial hospitals. The unit cost was applied by inflating 10 percent for the year 1997 and 1999 but not for the crisis year 1998. The average cost of services provided per card was 2,075, 2,621, and 2,711 baht in 1997, 1998, and 1999. The cost recovery ratio was 48 percent, 38 percent and 55 percent in each particular year. Higher cost recovery in 1999 was due to increased public subsidy to 1,000 baht per card. This figure was the overall cost recovery of the scheme, in fact, the low coverage provinces which had a higher proportion of high-risk group received a much lower cost recovery. In addition, provincial hospitals usually got a lower cost recovery according to their higher capability in mobilizing resources and decision made by the provincial budget allocation committee. Nevertheless, the project does not intend to recover all the costs since the government directly pays salaries to hospital staff.

Table 6.5 Cost of services provided per card and cost recovery ratio in 1997-1999.

	Outpatient			Inpatient		Cost per card	Cost recovery
	HC	DH	PH	DH	PH		
1997 Utilization/card [a]	4.25	2.39	1.08	0.17	0.16		
Cost/visit [b]	73	131	260	1,920	5,339	2,075	0.48
1998 Utilization/card [a]	4.66	3.21	1.51	0.21	0.20		
Cost/visit [b]	73	131	260	1,920	5,339	2,621	0.38
1999 Utilization/card [a]	5.57	3.18	1.44	0.20	0.17		
Cost/visit [b]	80	144	286	2,111	5,873	2,711	0.55

Sources: [a] utilization and membership database from Health Insurance Office, MoPH.
[b] applying cost data from 1996 and inflated by 10% in 1997 and 1999.

6.6 Performance of the scheme

Two dimensions of assessment will be elaborated - internal assessment and overall system assessment. The first dimension intends to assess how successful the scheme has been in achieving coverage, equity, efficiency, quality, sustainability and health status improvement and the latter shows how much the scheme contributes to overall health system objectives.

6.6.1 Health status improvement

In general, the overall health status of the Thai has improved steadily [7]. Comparing episodes of illnesses between 1991 and 1996 from the Health and Welfare Survey conducted by the Office of the National Statistics shows that episodes of self-

[4] This study was conducted in 5 provinces under the Office of Health Care Reform project for operating cost in 7 provincial hospitals, 16 district hospitals, and 126 health centers.

reported illnesses decreased from 5.9 to 4.0 per person per year. Furthermore, the severe episodes which required rest or stopped working for more than 24 hours was decreased from 1.9 to 1.4 per person per year. Institutional care use was increased both in public and private institutions from 50 percent to 65 percent of self-reported illnesses between the same period (Table 6.6). A general reduction of illness episodes while increased institutional care use in all groups of insurance beneficiaries was likely to be determined by improvement of various social determinants i.e. income, education, nutrition, living and working conditions etc. in addition to rapid expansion of health infrastructure and insurance coverage. Reduction of illness episodes was unlikely to be determined by expansion of insurance coverage since all recent schemes are emphasized solely on curative care, rather than preventive care.

Table 6.6 Illness episodes and utilization of institutional care 1991 and 1996.

	1991				1996			
	Illness		% Utilization		Illness		% Utilization	
	Total	Ill+ rest	Public	Private	Total	Ill + rest	Public	Private
Uninsured	5.7	1.9	27	20	3.5	1.3	35	27
CSMBS	5.4	1.5	37	23	3.7	1.0	44	27
State	5.2	1.0	25	27	3.2	1.0	26	36
Private	4.4	1.4	9	33	3.9	1.3	18	53
Veteran	9.1	2.0	31	14				
Social Security Scheme					2.5	1.0	26	32
Health card	7.0	2.5	44	11	4.5	1.6	52	16
LIC	7.2	2.5	41	8	6.9	2.5	55	12
Other	11.0	3.4	44	11	4.7	1.5	47	18
Total	5.9	1.9	31	19	4.0	1.4	42	23

Source: Analysis from database of Health and Welfare Survey 1991, 1996, NSO [9].

6.6.2 Achieving universal coverage

Rapid expansion of the scheme during the fourth phase was according to the 100 percent insurance coverage policy imposed by MoPH. The scheme was used as a tool to fill the gap in the system, providing insurance coverage for the uninsured. Extensive promotion of the card to the public in addition to incentives provided for card-sellers and setting the target number of card sales to each province determined the rapid expansion. Incentives to sell cards were decreased even though demand was increased at the end of the fourth phase; this was due to low cost recovery of the scheme. Intending to fill the gap by expanding use of the cards to Bangkok and other urban areas brought more financial burden into the scheme especially for secondary and tertiary hospitals. The inability of effective primary care networks and community structure to reach the target population in Bangkok and other urban areas can be blamed for this.

Three MoPH hospitals were recruited to implement this scheme in Bangkok and sold the cards at hospitals. Customers of the scheme were mostly former scheme patients. In particular cases, it created poor risk sharing and brought about more financial deficit. The overall potential of the scheme to provide voluntary coverage may not be more than 15 percent of the population since only 10-13 percent could be achieved even though a central policy had been imposed as well as extensive

promotion. The scheme was difficult to implement in urban areas and Bangkok because it was designed for the rural areas. Expanding the scheme in urban areas may create problems rather than benefits. To achieve universal coverage, only a compulsory basis, even a tax based welfare system or social insurance is possible [14].

6.6.3 Efficiency

(1) Administrative efficiency

As single price (community rating) has been set, large enough enrollments are required to get enough risk sharing and provide more financially sustainable rather than active selling or marketing. Furthermore, management capabilities, including general and financial management and management information system also determine the success of the program. Strong community support and marketing through community network was found in Nan province, the highest coverage province [15]. To manage the scheme efficiently, a more flexible rather than a rigid bureaucratic organizational structure is required. Presently, the Health Insurance Office is a temporary structure in MoPH. Rapid turnover of office director and staff at the provincial health office is the usual problem and can be solved if the administrative structure is revised and permanent staff positions are established. To manage the scheme more efficiently, a separation of service provision and purchasing role should be considered.

Inefficiency of fund management for reimbursement of high cost care and cross-boundary cases was identified [16] under the fee-for-service reimbursement system. DRGs were introduced in 1999 to reduce the manual workload and time consumed for case by case auditing. Hospital inpatient electronic database was used for reimbursement processes. Another problem is the inefficient handling of the information system by related organizations such as hospitals, and the central and provincial offices. Lack of good facilities in the central office - an incomplete library of DRGs Thai version software slowed down the process of reimbursement. Recently, the Thai DRGs version 2 was developed by completing the library and the DRGs grouper software was also completed.

(2) Technical and allocative efficiency

Payment methods used to pay hospitals is a global budget according to various criteria set by the provincial committees e.g. number of cards, utilization, and cost, in addition to some adjustments (arbitrary). Since the beginning of the fourth phase, the scheme provides direct access to community hospitals, not strict on the referral system from health center to community hospital but still strict for bypass from villages to provincial hospitals or other tertiary care hospitals. The 1996 data shows that cardholders in the villages had better risk sharing because of lower illness and utilization rates. However, village cardholders used more outpatient care services in public institutions, 80 percent as compared to 67 and 69 percent in municipal areas and sanitary districts (Table 6.7). A higher proportion of high level services used was found in municipal and sanitary districts due to lack of effective primary care setting in particular areas. Inefficient use of services in these areas was due to lack of effective primary care network not from the scheme itself.

Table 6.7 Illness and utilization rate (episodes/ person/ year) of cardholders and utilization pattern, 1996.

	Illness	Utilization	HC	DH	PH	Clinic	Private H	Others
Outpatient care								
Municipal area	5.56	3.87	4%	12%	51%	30%	3%	0%
Sanitary district	5.58	3.61	15%	28%	26%	27%	4%	2%
Villages	5.04	3.5	39%	22%	19%	19%	1%	1%
Inpatient care								
Municipal area		0.094		15%	71%		14%	0%
Sanitary district		0.092		45%	47%		8%	0%
Villages		0.077		45%	47%		5%	1%

HC = health center, DH = district hospital, PH = provincial hospital including other secondary and tertiary care, Private H = private hospital.
Source: Analysis from Health and Welfare Survey database, 1996 NSO [9].

(3) Financial sustainability

Financial sustainability is a major concern for voluntary health insurance according to selection bias and moral hazard. According to evidence from the scheme, moral hazard or over-utilization was not clear, the scheme paid the hospital as a global budget with low cost recovery, therefore, public facilities tended to keep costs down and the services were under provided.

However, selection bias was already detected especially in low coverage provinces and in urban areas and Bangkok. Improved cost recovery in 1999 was due to increased public subsidy; otherwise the scheme would deteriorate since demand for the card was increased and tended to get poorer risk members particularly, for households with chronic disease members. On a voluntary basis, a better risk sharing could be achieved only when there was strong community support and effective marketing. To combat this problem, a compulsory scheme or universal coverage should be considered.

6.6.4 Equity

Equity is another major concern for all public policies since it is the mandate of the government to distribute wealth and welfare for the people. Two dimensions of equity should be considered; equity in access and finance within as compared to other schemes.

(1) Equity in access

Cardholders had higher health needs compared to those under other health benefits but lower than the poor as shown in Table 6.6. The card provided the opportunity for cardholders to have access to care in much the same way as the welfare scheme. Nonetheless, discrimination in service provision was generally found especially in prescribing drugs; limiting drug items available for cardholders and the welfare scheme [17]. Inequity in access to care for cardholders in different areas already existed. Those in urban areas had direct access to provincial hospitals that were better equipped and had well-trained personnel. However, this was not entirely according to condition of access of the scheme but due to lack of effective primary care setting as mentioned earlier. Compared to the Social Security Scheme (SSS) and the Civil Servant Medical Benefit Scheme (CSMBS), this scheme is worse-off since

the SSS can have access to private facilities and the CSMBS has free access.

(2) Equity in finance

According to the single community rating premium and direct access to provincial hospital of cardholders in urban areas, the government subsidizes those in urban areas more than those in rural areas. The cost of service provided in the provincial hospital is usually higher than in primary care setting. Furthermore, comparing all schemes, the government also subsidizes care to this scheme and the welfare scheme less than it does in SSS and CSMBS [18].

6.6.5 Quality of care

Two aspects of quality should be considered: the medical aspect and the quality of services. There was no evidence of poorer quality of medical care received or health outcome within this scheme even though there was evidence of provider's bias in service provision. Quality of service provided was also perceived as good and quite satisfactory according to the survey conducted by Suan Dusit Poll [19]. However, satisfaction is subjective and depends on the expectation of consumers, different groups of beneficiaries will have their own expectations. The poor tend to have lower expectations and may be satisfied with the current service received. The quality assurance process is weak for the scheme, because no active process, only a passive grievance process exists. As all health facilities are under the MoPH the same as the Health Insurance Office, there is no incentive to establish all quality assurance processes.

6.7 Conclusion and discussion

The health card scheme in Thailand has evolved through five stages over 18 years. The fourth phase of the scheme achieved the highest coverage of about 13.5 percent of the population. In addition, it changed the concept and management from a community financing to a voluntary health insurance and a centrally monitored management. The matching fund from general tax revenue (managed as a revolving fund) is expected to increase the cost recovery to health care providers and to deregulate bureaucracy particularly when the government budget is used. In addition, central management provides more spread risks and increases access to high cost care through the cross-boundary and reinsurance policies. These changes have increased uniformity of the scheme and reduced provincial autonomy of creating new variants of the health card.

The rapid expansion of the scheme was the result of 100 percent health insurance coverage policy imposed by the MoPH and active sales promotion. Many times, the sales promotion undermined the ideal health delivery system, e.g. allowing bypass to larger hospitals for any condition of illness. Some provinces used the administrative budget as the lucky draw prize to promote health card sales. In addition, many hospitals were the outlets of card sales. Therefore the target of the health card may be misused and this is difficult to prevent.

Utilization rates by cardholders has increased over time and is higher than the rate of other schemes. The low coverage provinces are more likely to have higher utilization rates than the high coverage provinces according to adverse selection prevalent in urbanized provinces and Bangkok. The compulsory scheme will have a better share of risks between the healthy and the sick. The overall higher proportion

of care utilized at lower levels of care implies that cardholders were either satisfied with health services close to their homes or followed the guidelines that they should observe referral lines. The most efficient use of care would be those in villages, followed by sanitary districts and the least in municipal areas and Bangkok. High levels of care are more expensive although this is not needed for treatment of simple ilnesses.

The matching fund from the government increased cost recovery of the scheme from about 40 percent at community hospitals and 47 percent at provincial hospitals [20] to about 80 percent at community hospitals and 50 percent at provincial hospitals. In the high coverage provinces, the cost recovery rates will be higher because of good risk sharing therefore, provinces with coverage provinces perceive loss for every card sold.

Since the card price has been set as a single community rate together with lack of effective primary care network in urban areas, there was inequity in access to care and finance within the scheme. Cardholders in urban areas had better access to care and received higher government subsidies. Discrimination in service provision was also detected for drugs prescribed between schemes; health cardholders and those under welfare schemes were the worst-off due to lower cost recovery compared to other schemes. To ensure high quality care and services, the quality assurance mechanisms should be improved.

Following are lessons learned from the Health Card Scheme;

- Public voluntary health insurance was successful in providing insurance coverage to people in rural areas, ensuring access to care when needed and protecting households from getting in debt due to illness.
- Expansion of the scheme intended to cover those in urban areas and Bangkok aimed to achieve universal coverage is not possible and not appropriate and has created more problems than benefits.
- To achieve universal coverage, only a compulsory insurance can do, even from tax-based welfare scheme or social insurance.

Public voluntary health insurance scheme can be considered a transition phase for the country while universal coverage is still not feasible as another source of finance and tool for ensuring access to care and protecting households from financial loss. Voluntary health insurance requires the appropriate organization structure and managerial capability e.g. social marketing, financial management, information management system, quality assurance process, and community supports.

- Inefficient use of services didn't come from the scheme itself but was due to lack of effective and good quality primary care network in both rural and urban areas. Therefore, strengthening primary care network should be considered to reform the system.
- A single community rating premium together with lack of primary care in urban areas generated inequity in access to care and unfair financing within the scheme.
- Without standard payment mechanisms at the provincial level, provider disincentives and biased services provision could not be avoided so a standard payment mechanism which provides adequate incentives for service provision should be developed.
- Without an explicit national policy on health insurance together with fragmentation of schemes managed by various organizations, there would

be inequity of finance, therefore, an explicit national policy and body should be set.

6.8 Future challenges

The classic problem, selection bias in a community rating premium voluntary health insurance scheme is difficult to prevent. The scheme is considered a temporary phase prior to achieving universal coverage. As the scheme becomes more welfare oriented, it would help matters if the right people are targeted. Adjusting the scheme to get better risk sharing and validity of target population may take too much effort and is not feasible. However, while Thailand is still not able to achieve universal coverage, the scheme provides the opportunity to help those who are not covered by any insurance benefits and educates them on the insurance concept.

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CHAPTER 7

Private Health Insurance

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7.1 Situation and trend of private health insurance business

Voluntary private health insurance to protect the financial risk of private individuals in Thailand was less than 2 percent of the total health expenditures [1, 2]. It had a high elasticity growth in the Thai economy [3]. Health insurance operates under two lines of businesses - as part of life insurance and non-life insurance policies. Life insurance is categorized as ordinal, industrial, and group type. Non-life insurance is categorized as fire, hull, cargo, automobile, and miscellaneous whereby health insurance operates .

Thais have known private insurance for more than a hundred years, the first of which was the operation of a British company [4]. However, legislation of private insurance was first launched in 1910. Several legislation amendments have been implemented and regulatory agencies have been developed. Finally, the Department of Insurance (DOI), Ministry of Commerce (MOC) was established as the legal responsible organization.

7.1.1 Legislation evolution of private health insurance business

The insurance business in Thailand is tightly regulated because it involves public financial and national security. The previous acts, the Life Insurance Act 1967 and the Insurance Against Loss Act (later renamed as Non-life Insurance Act) 1967 allowed foreign equity participation of up to 15 percent but did not allow foreigners to be committee members in Thai insurance companies. In 1978, the MOC launched the Ministerial Notification on health insurance companies establishment.

The Life Insurance Act 1992 and Non-life Insurance Act 1992, amendments of the 1978 versions, were enforced in April 1992. Provisions stipulated in the acts increased the security of the industry which includes higher capital fund requirement, a more comprehensive supervisory authority and the establishment of the insurance arbitrator to settle disputes between insurance companies and the public.

The new line of business on the Protection of the Motor Vehicle Accident Victim Act 1992 was initiated and enforced all car and motorcycle owners since April 1993. Moreover, the MOC issued the 1993 Ministerial Notification on Investment of Life Insurance and Non-Life Insurance Companies to widen the range of investment in other businesses and further encourage the expansion of the industry.

In 1995, according to the 1992 Life and Non-Life Acts, the MOC's liberalization policy amended the Ministerial Notification by increasing foreign participation equity from 15 percent to 25 percent and allowed foreigners to be members of the companies' committee (up to one fourth of the total number). However, new companies were obliged to submit the price of premiums at the first registration. New foreign branches had to request permission from the Minister of Commerce.

On April 11th, 1995 the Cabinet approved in principle (in agreement with the proposal of the MOC) to allow the establishment of new insurance companies after new entries were banned for more than a decade. One reason was to accommodate the expanding insurance industry and to go along with the growing economy as a whole. It was also to fulfill the commitment of progressive liberalization submitted at the conclusion of the Uruguay Round Negotiations.

After the 1997 economic crisis, there was pressure for more liberalization of trade. Since January 2000, the MOC has amended the Life Insurance Act and Non-Life Insurance Act to fulfill the commitment of progressive liberalization by reducing the foreign barrier to voting rights and allowing higher percentage of foreign equity.

7.1.2 Number of insurers

The number of total private insurance companies stayed at 74 for several years [5]. As a result of the1992 splitting life and non-life insurance businesses and reducing foreign barrier in 1995, the number of insurance companies increased from 74 in 1994 to 100 in 1997; an addition of 26 newcomers. But half of the newcomers did not operate fully. In 1999, there were 26 life insurance companies and 79 non-life insurance companies. Five composite companies were involved in both life and non-life insurance businesses. Out of the 79 non-life insurance, six domestic companies offered only health insurance called health insurance companies (Table 7.1). In 1997,

Table 7.1 Number of insurers in Thailand, 1992-1999.

		Number of insurers								Premium volume 1997
		1992	1993	1994	1995	1996	1997	1998	1999	(Millions baht)
Total		74	74	74	75	75	100	100	100	116,437
Domestic		68	68	68	69	69	94	94	94	84,972
Foreign branch		6	6	6	6	6	6	6	6	31,465
Total for life ins.		12	12	12	13	13	25	25	26	58,780
Life only	Total	7	7	7	8	8	20	20	21	20,471
	Foreign	0	0	0	0	0	0	0	0	0
Composite	Total	5	5	5	5	5	5	5	5	38,309
	Foreign	1	1	1	1	1	1	1	1	27,526
Non-Life ins.										
Total for non life		67	67	67	67	67	80	80	79	57,657
Domestic	Total	62	62	62	62	62	75	75	74	53,718
	health in misc.	14	14	14	14	14	14	14	14	-
	health only	6	6	6	6	6	6	6	6	512
Foreign Branch	Total foreign	5	5	5	5	5	5	5	5	3,939
	health in misc.	1	1	1	1	1	1	1	1	-
	health only	0	0	0	0	0	0	0	0	0

Source: Number of insurers and premium volume from Department of Insurance, MOC [5].

twelve of the life insurance companies offered health insurance riders. The other fifteen also offered health insurance as part of miscellaneous insurance.

7.1.3 Pattern of health insurance contract

There are five main patterns of health insurance contracts [6]

1) Extension of individual life insurance for hospitalization and surgery (a health rider of individual life insurance).
2) Extension of group life insurance for hospitalization and surgery (a health rider of group life insurance).
3) Group life insurance combined accident and health insurance (a group health insurance policy offered by a life insurance company).
4) Individual health insurance (an individual health policy offered by a non-life insurance company).
5) Group health insurance (a group health insurance policy offered by a non-life insurance company).

A private health insurance is a contract between the insurer and the insured. The insurer is committed to pay the indemnity for hospitalization, surgery, and other expenses from illness or accidents based on conditions in the contract. The insured has to pay out a premium to the insurer. The above general patterns were modified especially in the competitive market, new products (policies / premiums) were launched to increase their market share such as the health and accident insurance package and the health insurance and savings package. The medical benefits packages are common but other benefits depend on each policy. The health insurance is based on an annual contract basis.

7.1.4 Benefit packages

This section is a summary of data collected from 21 companies in the year 2000. In general, medical benefit packages covered only inpatient care. Seven main items are 1) Room and board, 2) ICU bed, 3) general treatment, 4) Laboratory and special investigations, 5) consultation fee, 6) emergency care, and 7) surgical fee and operating room. As the payment mechanism is mainly “fee for service”, every item has a maximum limit of liability. Some insurers have additional benefits such as ambulatory care, birth delivery and catastrophic illnesses. Every health insurer has an exclusion list. Moreover, some insurers do not accept uninsurable risk persons who have pre-existing diseases such hearth disease, cancer, diabetes, epilepsy and blood pressure disorder, etc.

1) Common exclusions

- Pre-existing conditions and congenital abnormality
- Admissions not recommended by a doctor or convalescence
- Routine health checks, eye examination, dental treatment except in the case of accident, cosmetic surgery, contraception, abortion, pregnancy and delivery care
- Prosthetic, aids equipment, and non-surgical appliances
- Self inflicted injury, suicide attempt, adverse drug reaction or drug overdose, alcoholism, drug abuse, sexually transmitted diseases, HIV/ AIDS related disease and mental disorder

2) Uncommon exclusion list

- Pre-existing condition which has not been cured such as hemorrhoid, sinusitis, peptic ulcer, hepatitis and asthma
- Renal failure
- Chronic diseases which occur in the first six months (probation period) such as tuberculosis, cancer, hernia, tonsil, adenoid gland, renal diseases and blindness
- Vaccines except rabies vaccine and tetanus vaccine

In life insurance, cash benefit as an income compensation due to hospitalization is commonly included in the main policy. This cash benefit induced unnecessary admissions, a few cases were proved to be moral hazards (one to two percent of the total insured). Many insurers avoid ambulatory care insurance. Some insurers, after having experienced a high loss ratio from ambulatory care, terminated this coverage. The reasons are that it is difficult to audit the bills and high loss adjustment expenses. Indeed, this benefit leads to increasing frauds.

7.1.5 Number of policies, insured individual and premiums

Life insurance can be categorized into three main types of policy: ordinary, industrial and group type. The health rider in the ordinary type is the most common. The number of health riders in ordinary life insurance (individual insurance) increased from 1,602,000 policies in 1994 to 3,542,000 policies in 1997. The proportion of the number of health riders as compared to the number of total main policies also increased from 49 percent to 78 percent during the same period. In contrast, health insurance in non-life insurance was only 0.4 percent of the total non-life insurance policies in 1998. It slightly increased from 24,000 to 53,000 policies between 1992 and 1998 (Table 7.2).

Table 7.2 Number of insurance policies of health insurance in life and non-life insurance, 1992-1998 (x 1,000 Policies).

Year	1992	1993	1994	1995	1996	1997	1998
1. Number of individual life policies (only ordinary type)	2,444	2,838	3,272	3,773	4,299	4,549	4,616
2. Number of health rider *	na	na	1,602	2,459	3,340	3,542	na
3. Health riders as percentages of life policies			49%	65%	78%	78%	
4. Non-life insurance	3,018	6,237	4,342	12,669	14,873	14,352	12,938
5. Health in non-life insurance	24	36	44	54	41	39	53
6. Health policies as percentages of non-life policies	0.8%	0.6%	1.0%	0.4%	0.3%	0.3%	0.4%

Source: Department of Insurance, Ministry of Commerce, 1992-1997 [5].

* Numbers of health rider are from Thai Life Assurance Association quoted in Surasiengsunk, 1998 [5].

The number of health policy in non-life insurance in each year depends on the number of those insured in a group, economy and other public insurance scheme competitors. The individual policy had a minor share, only 20 percent of the total health insurance policy in 1997 [7]. Since the economic crisis in mid 1997, the number of group insurance purchased by employers as part of their employee benefit scheme (especially for the white-collar workers, in addition to the social security

scheme) has decreased in response to the slump in business. The non-life insurance companies are more interested in individual customers. On the other hand, the number of health riders was usually incremental from the number of insured from the previous year. Interviews with insurance managers reveal that market strategies combined health and life insurance as a package.

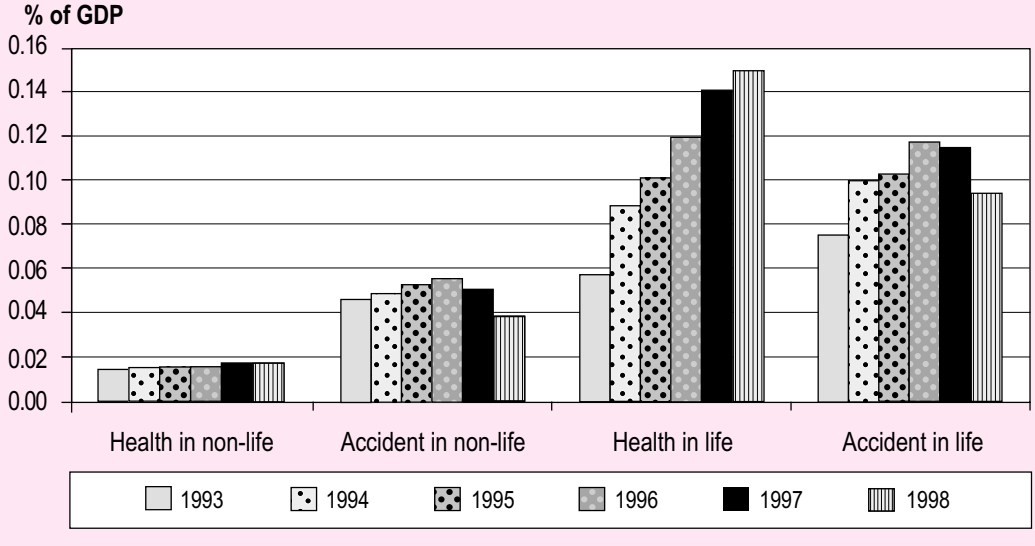
In 1998, health rider premiums were 7,094 million baht, 12.6 percent of life insurance premiums received. It had an increasing proportion from 6.9 percent in 1993 to 12.6 percent in 1998. Health insurance premiums in non-life insurance business amounted to 708 million baht, ten times less than that of life insurance (Table 7.3). It was quite stable at 0.02 percent of GDP during 1993-98. In contrast, health in life insurance has a progressive growth from 0.06 percent to 0.14 percent of GDP during 1993-98 (Figure 7.1).

Table 7.3 Premium volumes of health insurance in life and non-life insurance, 1992-1998, million baht at current price.

Year	1992	1993	1994	1995	1996	1997	1998
1. Life insurance	29,128	34,558	40,867	48,253	55,727	58,780	56,339
2. Health in life insurance	na	2,370	3,264	4,370	5,609	6,789	7,094
3. Health rider premiums as % life insurance premiums		6.9%	8.0%	9.1%	10.1%	11.5%	12.6%
4. Non-life insurance	25,144	35,946	44,424	53,079	61,185	57,657	48,475
5. Health in non-life insurance	269	443	525	614	687	729	708
6. Health premiums as percentages of non-life insurance premiums	1.1%	1.2%	1.2%	1.2%	1.1%	1.3%	1.5%

Source: Department of Insurance, Ministry of Commerce [5].

Figure 7.1 Health and accident insurance premiums as percent of GDP, Thailand.



Source: 1. GDP: National Economic and Social Development Board (NESDB) Thailand [8].
2. Insurance premiums: Department of Insurance, Ministry of Commerce, Thailand [5].

Unfortunately, only the number of policies is available, we were unable to acquire access to the total number of insured; one person may have more than one policy; companies kept this information secret. However, Kolakul [6] estimated the total insured in 1986 was 236,100 persons. Mallikamas [3] estimated that in 1991 there were 930,000 people holding private health insurance. Surasiengsuk [7] estimated that there were 5.897 million people with private health insurance in 1997 (9.73 percent of population). While the Health Welfare Survey [9] in 1996 showed that the number of people who had private health insurance was 574,610 or one percent of the population (Table 7.4).

The magnitude of private insurance outlay (calculated indemnity at 66.74 percent loss ratio) in 1997 was 2.8 percent of the total national health expenditure estimated by Pongpanich, et al. [8] (Table 7.5).

Table 7.4 The number of people reported having insurance in each scheme.

Insurance scheme	Persons	%
1. No insurance	32,571,571	54.4
2. Civil Servant Medical Benefit Scheme	5,371,805	9.0
3. Private enterprise	703,677	1.2
4. Social Security Scheme and Workmen Compensation Scheme	3,351,546	5.6
5. Low-Income Scheme	7,534,745	12.6
6. Health Card Scheme	9,170,239	15.3
7. Private insurance	574,610	1.0
8. Others	496,241	0.8
9. Missing data	128,348	0.2
Total	**59,902,781**	**100.0**

Source: Office of the National Statistics, 1996 [9].

Table 7.5 Private health insurance premium as a percentage of total national health expenditure.

	Baht	% of national health expenditure
1. Total health insurance premiums (x1000) in 1997	7,518.06	4.22
2. Indemnity (Loss ratio=66.74%)	5,017.55	2.82
3. Total national health expenditure (x1000) in 1998	178,129.05	100

Source: 1. Premiums and Loss ratio from DOI, 1997 [5].
2. Total national health expenditure from Pongpanich, et al. [8].

7.1.6 Premium rates

The individual insurance premium rate was adjusted for age, sex, occupational risk, and benefit package. The price is positively related to age except for newborns to five-years old children - the younger the age, the higher the premium. Female premiums are 1 to 1.5 times that of male premiums. With the higher risk e.g. in the third class such as salesmen and factory workers, the premium rate was multiplied by 1.3 times of the other lower risk categories.

Each company has the options to choose four different price packages. The premiums of group insurance were tailor made, depending on the demography characteristic of the members in that group e.g. age range, female ratio, occupational risk, benefit package, level of indemnity and number of members. Employers who could

afford more benefits in addition to the Social Security Scheme usually purchased group insurance. However most employers have stopped insuring their employees as a result of the mid 1997 economic crisis.

The premium for a thirty-year-old individual ranges from 1,550 to 8,000 baht per year (room and board of less than 2,000 baht/day). Group insurance premiums for inpatient care range from 450 baht to 6,800 baht per year. Premium rates vary greatly. The insurance companies have to submit the premium rate for approval by the DOI. Insurance officers in DOI approved premium based on company specific historical losses incurred. There are no reference prices. In May 2000, DOI established a committee to approve and oversee health benefits packages and premiums. The policy is to adjust a reasonable premium based on risks rather than trying to control prices.

Using the data on the premium and number of the insured, the average health insurance premiums in 1997 were 1,917 and 2,288 baht for life and non-life insurance respectively (Table 7.6 and 7.7).

Table 7.6 Average health rider premiums, Life insurance business, ordinary type.

	1994	1995	1996	1997
Premiums (x1000 baht)	3,263,614	4,370,375	5,609,241	6,788,898
Number of health riders	1,601,500	2,459,336	3,339,622	3,541,880
Premium per health policies	2,038	1,777	1,680	1,917

Source: Premiums from DOI [5].
Numbers of health riders from the Thai Life Assurance Association.

Table 7.7 Average health insurance premium per capita in a non-life insurance company.

	1996	1997	1998	1999
Premiums (x1000 baht)	85,505	81,694	65,205	62,345
Number of members	41,193	35,711	29,191	32,029
Premium per capita	2,076	2,288	2,234	1,947

Source: Thai Health Insurance Co., Ltd.

7.2 Market structure and trend

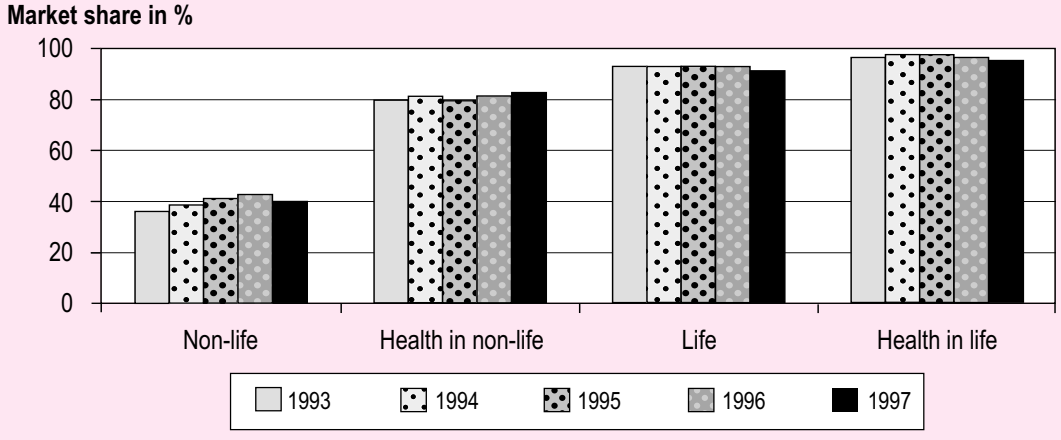
Market structure was highly concentrated, the three largest health riders in life insurance companies (out of 12) had market shares of 88 percent of total health insurance premiums in 1997 (Table 7.8). The non-life insurance market is less concentrated than life insurance since it has several products ranging from fire, automobile to cargo. The distribution of market is mainly accounted for by different proficiencies in each type of non-life insurance. The five largest 21 non-life insurance had 81 percent total health insurance premiums. Figure 7.2 demonstrates two groups of the largest five companies, life and non-life in terms of total premiums and health insurance premiums between 1993-1998.

Table 7.8 Market share of direct health premium (million Baht), Thailand, 1997.

Order	Company	Direct health premium	Market share (%)
	Health riders in life insurance company		
1	A.I.A	3,574.59	53%
2	Thai Life Insurance	1,794.41	26%
3	Sri Ayudhaya CMG Life	576.35	8%
4	Bangkok Life Insurance	312.34	5%
5	Muang Thai Life	255.52	4%
6	South East Insurance	130.06	2%
7	Inter life John Hancock	55.92	1%
8	Prudential T S Life	33.11	0%
9	Siam Commercial Life Insurance	25.31	0%
10	Thai Ocean	17.61	0%
11	Thai Prasit Life Insurance	12.26	0%
12	Siam Life Insurance	1.43	0%
	Total	***6,789***	***100%***
	Non life insurance company		
1	Blue Cross Insurance	344.2	47%
2	Thai Health Insurance	78.26	11%
3	Apex	61.44	8%
4	Cigna Property	57.59	8%
5	Bangkok Insurance	52.91	7%
6	Thai Medical Care	27.42	4%
7	Samaggi Insurance	23.64	3%
8	Bangkok Saha	22.31	3%
9	Commercial Union	18.66	3%
10	Chubb Insurance	8.97	1%
11	General Accident	6.25	1%
12	The safety Insurance	5.96	1%
13	Deves Insurance	5.83	1%
14	Navakij Insurance	5.38	1%
15	Indara Insurance	3.46	0%
16	Insurance One	2.42	0%
17	General QBE Insurance	2.04	0%
18	Muang Thai Life (Non-life business)	1.54	0%
19	Thai Setakij Insurance	0.47	0%
20	Ambassador Insurance	0.42	0%
21	Vanich Insurance	0.003	0%
	Total	***729.173***	***100%***

Source: Insurance premiums: Department of Insurance, Ministry of Commerce, Thailand [5].

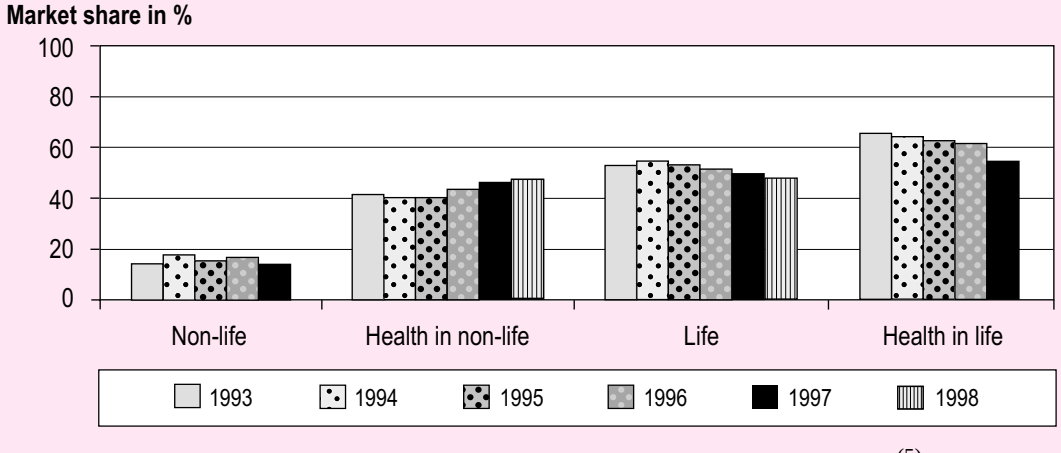
Figure 7.2 Market share of top five insurance companies in Thailand.



Source: Insurance premiums: Department of Insurance, Ministry of Commerce, Thailand [5].

The largest life insurance is American International Assurance Limited Company (AIA), which is a foreign branch of Hong Kong's company. It took 47 percent of the life insurance market share and 53 percent of health premiums in life insurance. In 1997, it declined slightly from previous years. Blue Cross Insurance, a foreign joint venture company, had the highest premium volume of health insurance among non-life businesses. It held the top and increased its market share from 42 percent to 47 percent during 1993-1998 (Figure 7.3). When considering life and non-life insurance, AIA had the largest share (about 48 percent) of the total health insurance premiums, followed by Thai Life Insurance, Sri Ayudhya CMG Life Insurance, Blue-Cross Insurance, and Bangkok Life Insurance (Table 7.8).

Figure 7.3 Market share of the biggest company in life, non-life, and health insurance, Thailand.



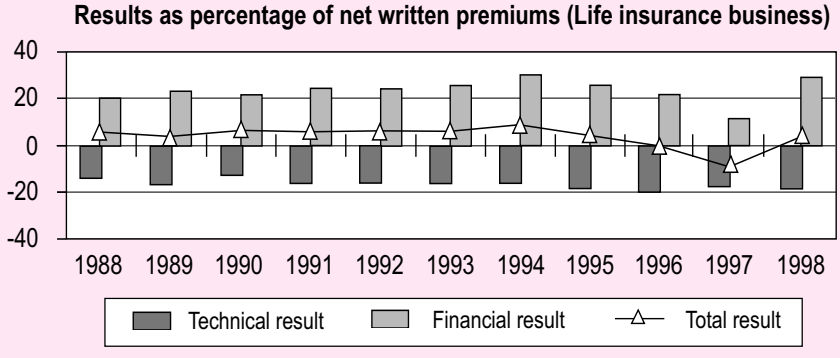
Source: Insurance premiums: Department of Insurance, Ministry of Commerce, Thailand [5].

7.3 Performance, loss ratio and risk management

7.3.1 Performance

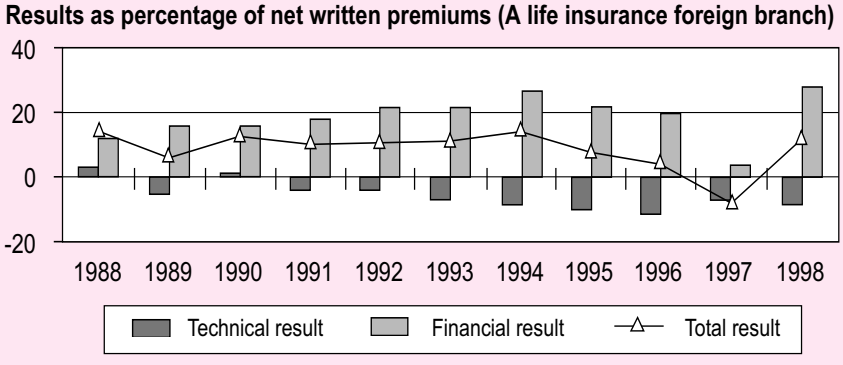
Performance was measured by profit and loss was measured by underwriting results and investment or financial results. The underwriting results in life insurance showed a poor performance, making a stable loss of 13 percent to 20 percent of net written premiums between 1988 to 1998. However, the performance measured by total results showed a surplus, mainly due to investment performance. High dependence on financial results brought about total negative results in 1997 due to the economic crisis in that year. The only one foreign branch of life insurance (AIA) had better underwriting results than others. Consequently, the foreign branch had little negative effects in 1997 and improved quickly by gaining 13 percent of net written premiums in 1998. (Figure 7.4 and 7.5).

Figure 7.4 Operating results of life insurance business, Thailand.



Source: Department of Insurance, Ministry of Commerce, 1992-1998 [5].

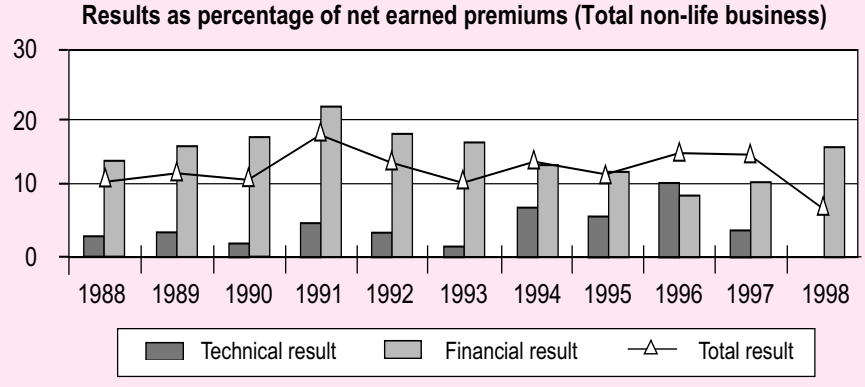
Figure 7.5 Operating results of a life insurance foreign branch in Thailand.



Source: Department of Insurance, Ministry of Commerce, 1992-1998 [5].

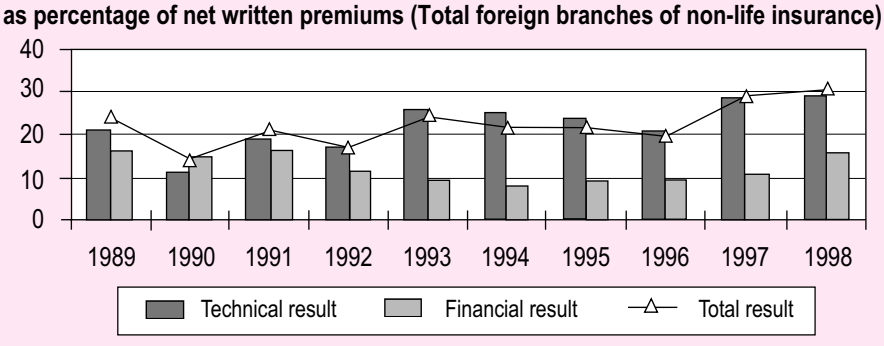
The overall performance of non-life insurance results is satisfying. Although the underwriting results dropped to zero, the total result still had a seven percent profit during the crisis in 1998. Foreign branches shared only seven percent of the non-life insurance market but they showed a very good operating result - a net profit of not less than 10 percent of net earned premiums which peaked at 32 percent of net earned premiums in 1998 (Figure 7.6 and 7.7).

Figure 7.6 Operating results of overall non-life insurance business, Thailand.



Source: Department of Insurance, Ministry of Commerce, 1992-1998 [5].

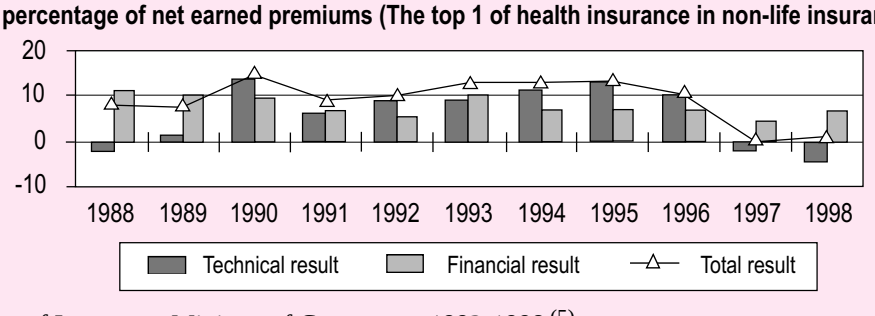
Figure 7.7 Operating results of total foreign branches of non-life insurance, Thailand.



Source: Department of Insurance, Ministry of Commerce, 1992-1998 [5].

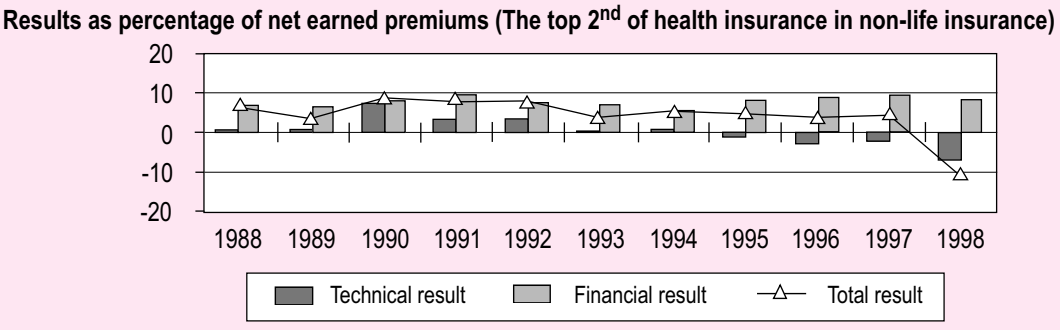
The main market share of health insurance in non-life insurance belongs to the health insurance companies. This business produced a little net profit. Even in the largest market share company (Blue Cross Insurance), the total results have not been higher than 15 percent of net earned premium and dropped to zero in 1997 with a slight increase in 1998 (Figure 7.8). The second and third largest market share companies (Thai Health Insurance and Apex) had a decreased net profit due to high negative underwriting results (Figure 7.9 and 7.10).

Figure 7.8 Operating results of the top 1 market share of health insurance in non-life insurance.



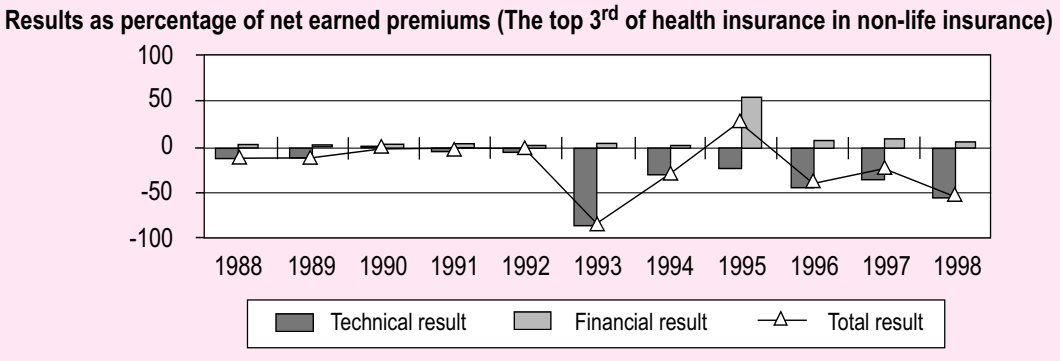
Source: Department of Insurance, Ministry of Commerce, 1992-1998 [5].

Figure 7.9 Operating results of the top 2nd market share of health insurance in non-life insurance.



Source: Department of Insurance, Ministry of Commerce, 1992-1998 (5).

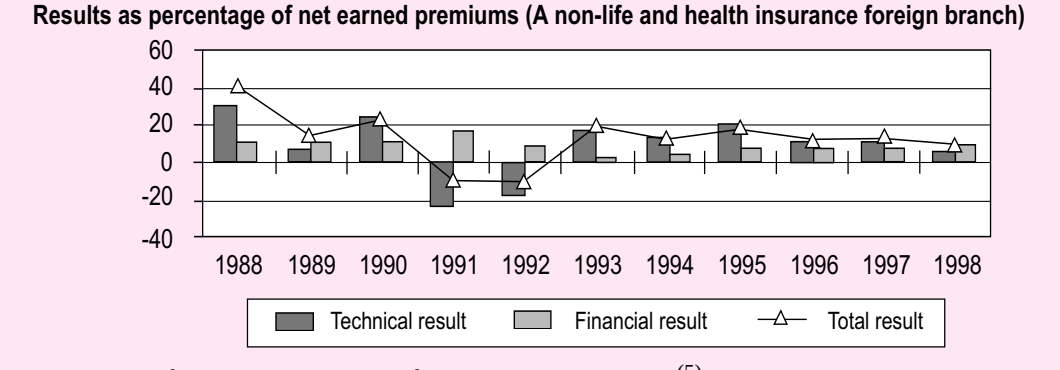
Figure 7.10 Operating results of the top 3rd market share of health insurance in non-life insurance.



Source: Department of Insurance, Ministry of Commerce, 1992-1998 (5).

The fourth largest market share was a non-life foreign branch (Cigna Property). It is the only one in five foreign branches that operates health insurance. The total results of this company was positive and could stand during the economic recession but less than other foreign branches that did not operate the health insurance business (Figure 7.11).

Figure 7.11 Operating results of a non-life and health insurance foreign branch.

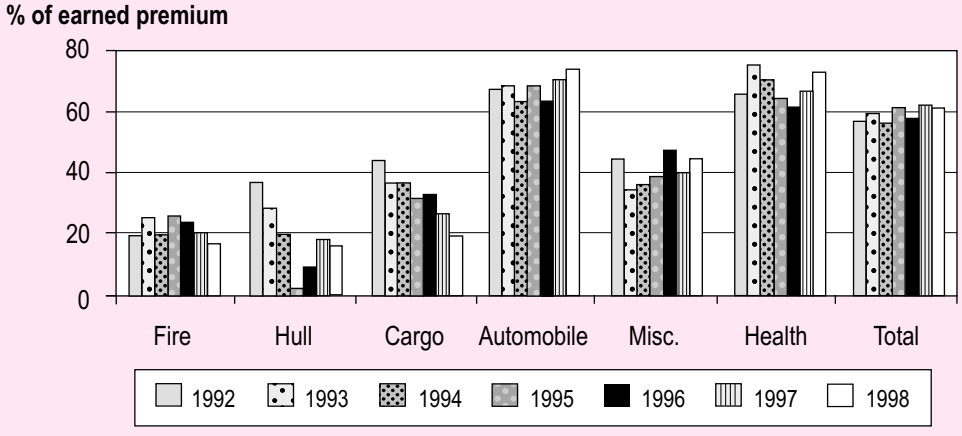


Source: Department of Insurance, Ministry of Commerce, 1992-1998 (5).

7.3.2 Loss ratio

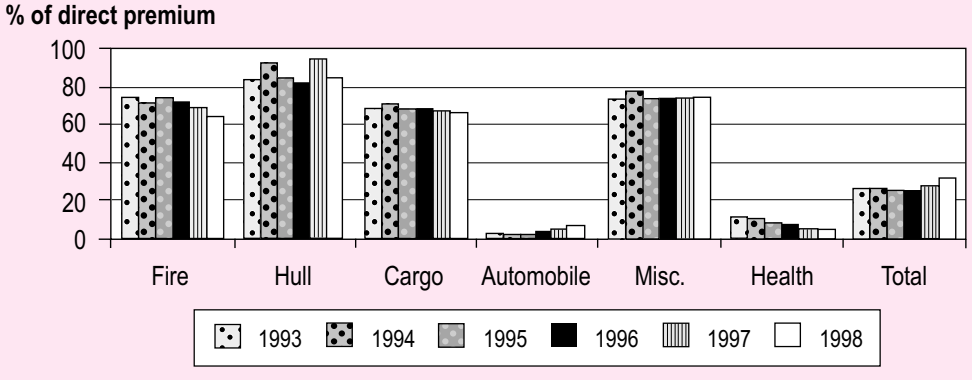
Among non-life insurance, health and automobile insurance had the highest loss ratio (compensation as percent of net earned premium), ranging 60 percent to nearly 80 percent (Figure 7.12). High medical expenses in private hospitals explained the high loss ratio. Ceded premium (re-insurance with other companies in case of high risk and loss ratio) minimizes risk of loss. The higher proportion of ceded premium to total direct premiums, the lower the risks to the company. Figure 7.13 showed the very high proportions of ceded premiums among fire, hull, cargo and miscellaneous insurance, of about 70 percent of direct premiums. Some losses were spread aboard and other reinsurance companies. In contrast, health and automobile insurance spent less than 10 percent (in 1998) on reinsurance.

Figure 7.12 Loss ratio of non-life insurance business.



Source: Department of Insurance, Ministry of Commerce, 1992-1998 [5].

Figure 7.13 Ceded premiums as percentage of total premiums.



Source: Department of Insurance, Ministry of Commerce, 1992-1998 [5].

Due to data limitations, we cannot show loss ratio of health riders in life insurance, but in-depth interviews revealed increasing loss ratio and less profit. The loss ratio of health in non-life insurance companies increased from 68 percent to 89 percent between 1994 and 1997. In this group, two companies were inactive. The loss ratio of the largest market share (Blue Cross Insurance) in this group was 75 percent

in 1998. Loss ratio among health only companies was slightly higher than the other group. The foreign branch showed good result of risk management. The health insurance loss ratio of this branch was only 32 percent (Table 7.9).

Table 7.9 Loss ratio, expense ratio, and commission ratio of health insurance business.

	Health only (6 domestic companies)			Other Non-life (14 domestic companies)			Foreign Branch (1 branch)		
	Loss ratio	Expense ratio	Commissions ratio	Loss ratio	Expense ratio	Commissions ratio	Loss ratio	Expense ratio	Commissions ratio
1993	0.73	0.17	0.14	1.25	na	0.12	0.31	na	0.14
1994	0.68	0.18	0.13	0.99	Na	0.13	0.45	na	0.20
1995	0.65	0.19	0.12	0.64	Na	0.08	0.74	na	0.23
1996	0.68	0.20	0.12	0.49	Na	0.07	0.25	na	0.10
1997	0.89	0.25	0.10	0.63	Na	0.06	0.32	na	0.08

Note: Loss ratio = indemnity expenses / earn premiums
Expense ratio = (underwriting expenses + lost adjustment expenses) / net premiums
Commissions ratio = Commission expenses / direct premiums

7.3.3 Cost containment mechanisms

When faced with increasing loss ratio; insurance companies introduced stronger measures. In-depth interviews of the 11 insurance managers and telephone interviews of 21 companies in 2000 revealed two strategic cost containment approaches.

Firstly, through risk management on underwriting procedure, medical examination is usually a prerequisite of individual underwriting but many insurers cut this cost and put more restriction on pre-existing conditions by the insured self-declaration. When proof of false facts is declared; the contract is automatically canceled. Insurers are likely to avoid the walk-in customer because some of them are a moral hazard with possible double insurance and high risks. The exclusion lists of general health insurance are cosmetic surgery, sterilization, pregnancy and delivery, alcoholism, drug addiction, genetic or congenital diseases and sexually transmitted diseases. Some chronic diseases have limited indemnity, otherwise additional premium is required for endorsement, such as cancer, diabetes, heart disease, hypertension, renal failure and organ transplants. Once an individual has extraordinary high loss ratio, the insurance contract will be revised to increase next year's premium or add the disease in the exclusion list. Some insurers focus on agent training on underwriting to prevent high-risk selections.

Secondly, compensation controls regulation includes notification of claim, the insurer's audit of medical expenses of either pre-admission or post-discharge. Insurers in Thailand have developed the notification of claim - the so called "Fax Claim - i.e. seeking authorization through instant facsimile transmission". Before admission, the hospital has to send the present illness and primary diagnosis of insured patient to the insurer for admission authorization. The insurer may reject to pay on the unnecessary hospital stay and inform the hospital on the same day. The hospital will inform the patients to pay by themselves. This can streamline significant unnecessary hospital stays. Before discharge, the hospital has to send the list of medical and hospital expenses to the insurer again. After approval of the reimbursable items by the insurer, the hospital charges the non-reimbursable expenses from the patients

before they are discharged.

The insurers have also visited the hospital for routine medical audit to inspect the insured medical records. Some insurers have training courses for orientation on this arrangement and inform the hospitals that they always take precautions to combat possible fraud claims by both hospitals and insurers.

Every insurer complained about the high medical cost among private hospitals. The insurers would control cost by negotiation to the contracted hospitals for the audit mechanism and discount. It is a symbiosis for insurers and hospitals when patients go to the contracted hospital, they do not have to pay as they go. The hospitals will be reimbursed directly from the insurers. And this is a service that the insurers promote to customers. This mechanism is one of the effective cost containment methods in private insurance. But some hospitals complained of delayed discharge since there is a long waiting time - sometimes half a day for claims approval.

Some other insurers terminated their insurance policy for those individuals who made frequent claims renewal, or added premium for the chronically ill persons. Group insurance policy is likely to have a lower loss ratio than the individual policy. The policy for non-life insurance is an annual contract. The main customers in non-life group insurance are white-collar employees whose employers purchased insurance as fringe benefit despite the fact that they were already covered by compulsory social insurance; group insurance was mostly terminated due to the economic slump in 1997.

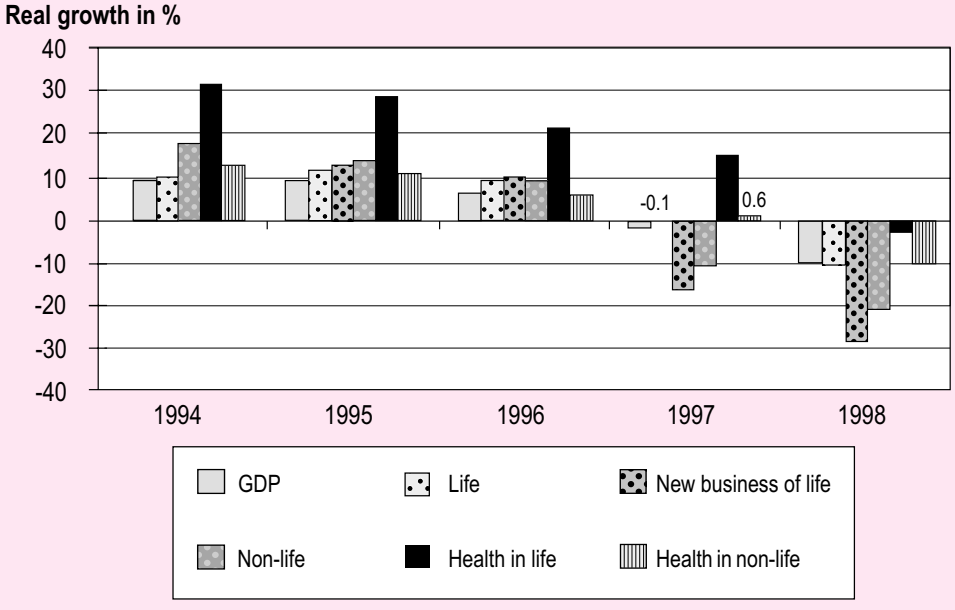
On the other hand, health riders of life insurance usually have been offered to attract the life insurance customers or prepared as an inclusive package, there is a minimum of adverse selection. Even though health riders sometimes create loss, after balancing investment profit from the main life policy premiums (whereby premium is much higher), it is still a key marketing strategy.

7.4 Implication of trade liberalization and economic crisis on private health insurance market

Insurance business growth developed with the general economic growth. The Thai economy had a steady growth during the first half of 1990s. Real GDP growth in 1994 was particularly high, 8.9 percent; this fueled consumer demand for private insurance. In 1994, new business growth of life insurance as measured by first year direct premium generated from new customers, was 10.2 percent. In the same year, growth of health in life insurance peaked at 31 percent whereas health in non-life insurance had a lower growth rate of 12.8 percent.

Note that on July 2nd 1997, the Bank of Thailand replaced the fixed exchange rate regime with a “managed float”. Liquidity crunch in the finance and banking system reached a crisis in late 1997. Real GDP was slightly decreasing in 1997, but severely affected the growth of new businesses in the life and non-life insurance market in 1997. With further recession in 1998, real GDP was decreased by 10.2 percent and had deeper impacts on the private insurance market (Figure 7.14). Private health insurance was growing alongside economic growth. The stagnation of the financial sector during the crisis severely affected insurance companies, which relied mostly on financial investment.

Figure 7.14 Real annual growth of life, non-life and health insurance premiums Thailand, 1994-1998.



Source: 1. GDP: National Economic and Social Development Board (NESDB) Thailand, 2000 [8].
2. Insurance premiums: Department of Insurance, Ministry of Commerce, Thailand [5].

Note: In 1998, only life insurance premium data is available.

Thailand is a member of World Trade Organization and has commitments to a progressive liberalization. The health insurance business is under the financial service sector categorized by GATS and under agreement to progressive liberalization by members of WTO. There are relevant sub-sectors, for example CPC 81211: life accident and health insurance services in life insurance services and CPC 81291: accident and health insurance services in non-life Insurance services.

Thailand has gradually decreased foreign investment barriers since 1992. Even though the number of foreign insurer was small, it penetrated 27 percent of market share. In 1998, there were two foreign insurers with branches in Thailand adding to the five companies in the previous year. Moreover, the Thai joint venture companies were already captured with high foreign shareholders. No doubt the foreign companies had higher performance and competitiveness than domestic companies. Domestic companies need to improve their performance in the global market. One way is to affiliate with an international insurer. Joint venture companies receive technology transferred from their foreign counterpart and make the business more competitive after a few years.

The regulator, DOI has a clear policy and systematic practice toward a progressive liberalization. In the meantime, the legislation was amended in such as way to prevent insolvency, mergers and monopolies. Although private health insurance was more or less a private service, public sector involvement and regulations to protect consumers against abuses and inequitable treatment is required.

7.5 Discussion and recommendations

In this section, we will analyze the strengths and weaknesses of voluntary private insurance and propose their potential role in the current health systems reform towards universal coverage.

All insurers are private for profit companies - no foundation or non-profit organization runs the insurance business in Thailand. Insurance companies compete to increase their market share. At the same time, they avoid the high indemnity to keep the high profit margin. Insurers offer benefit packages and services to meet customers' satisfaction. It covers small sections among urban high earning individuals, particularly those strategically attached to the life insurance business. It has limited potential to extend coverage to the uninsured, informal sector and lower income group.

Private health insurance is flexible to household income and economic growth especially employer group insurance arrangements. It is not a promising source of finance during times of economic recession, but the social insurance fund has a significant stable source of finance.

There were adverse selections. Many chronically ill patients were denied insurance from private insurers; although some conditions were accepted on higher premiums. The higher risk and lower income groups are pushed to their own pocket or other public schemes. The nature of voluntary and annual contract renewal provides the insurer the opportunity to terminate contracts or make premium adjustment.

There is no risk pooling in private insurance as premium was adjusted according to individual characteristic such as age, sex, and occupation. Risk pooling is rather limited among the same occupational groups. This penalizes the poor, the elderly and the higher risk; private insurance cannot achieve the social goal of equity in financial contribution. However, evidence showed that prepaid insurance is fairer than out of pocket.

Paying hospitals on a fee-for-service with a ceiling triggers the increase of unnecessary service items and overcharging to reach the ceiling. Some insurers suggested that there should be a reference price list or standard price per Diagnostic Related Group (DRG) weight. However, private insurers did not think of close end expenditure such as capitation and the global budget.

Experience of pre-admission authorization is effective in controlling over utilization of hospital services. Frequent hospital visits and medical audits by insurers signal hospitals to be on the alert. These efforts can only halt fraud claims - they cannot reduce medical costs.

Fraud protection, claim audits, handling and other transaction costs are expensive, especially under the fee-for-service reimbursement method. Commission payment to insurance agency adds to the administrative cost.

What role should the private health insurance have? We propose three roles:

An alternative role: among those not covered by compulsory insurance or public health welfare, private health insurance could be an alternative. But risk adjusted premium cannot ensure fairness of financing and risk pooling objectives. Measures such as community rate to solve equity problems and reinsurance to help financial risk to insurers can be introduced.

An additional role: among those covered by compulsory insurance or public health welfare, an duplicate private insurance covering the same medical benefits leads to an inefficiency system and unnecessary duplication. Private insurance pack-

age among this group should be designed as a supplemental benefit from the compulsory or basic scheme. This was evident during our work on the Civil Servant Medical Benefit (CSMBS) Reform, whereby some beneficiaries are also covered by private insurance. They are reimbursed from both private insurers and CSMBS with a surplus of the actual expenditure; this contradicts a common rule that "compensation should not go beyond real spending". Later, the CSMBS restricted reimbursement first from private insurance and later from CSMBS for the portion beyond the private insurance coverage.

A composition in compulsory scheme: In regard to the Protection for Motor Vehicle Accident Victim Act 1992, private non-life insurance companies are carriers of this scheme. There were too many problems, for example high underwriting expense, overcharge to touch the ceiling by providers, under-reimbursement due to technical problems and manipulation by insurers as well as delayed payments. The burdens were shifted to other public schemes or out-of-pocket. The loss ratio of this business was 41.5 percent in 1998, expenses ratio was 27 percent. Under-writing expenses were the majority while loss adjustment expenses were the minority. The profit making attitude leads insurers to deny responsibility or indemnity when documents are incomplete.

Universal coverage is one of several key health reform directions in Thailand. The reform should achieve three social goals of equity, efficiency and quality of the health system. Therefore the basic health insurance should be fairness in financing, efficiency (low administration expenses), and patient satisfaction. The private companies may join the new scheme with community rate and reinsurance to the public insurance funds.

The private health package could be designed as a supplementary benefit, not a duplication of the core package covered by public schemes; unless there is a provision for opting out of the public compulsory scheme among the high income earners to join full benefit from private insurance. Whether private insurance is allowed to offer core packages with community rate to compete with a new public scheme for the uninsured is subject to further debates. In some countries, private insurance is not allowed to provide core packages.

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PART III:

Emerging and innovative scheme

CHAPTER 8

The Traffic Accident Insurance

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8.1 Traffic accident insurance

Road traffic accident is a major threat to public health, life and the Thai economy. Because of the limited health care resources, the consequences of accidents are more drastic in a developing country such as Thailand. Insurance is the mechanism to transfer the risk of financial loss from an individual to an insurance pool.

Thailand has a population of 62.1 (Institute for Population and Social Research, Mahidol University) and more than 15 million motor vehicles. The number of vehicles increased by 14 percent annually during the last decade. Sixty-five percent of all registered vehicles are motorcycles that are involved in most of the accidents. It is estimated that traffic accidents occur 197 times each day throughout the country. In 1997, prevalence of injury and death caused by accident were 80.09 percent and 22.75 percent per 100,000 persons, respectively (1).

Traffic accident ranked among the country's top three killers for more than three decades. The fatality rate has been reported at about 3.6 percent of all traffic-injured patients in hospitals (2). The accident victims often lose their lives at a relatively young age (an average of 31.8 years). The potential productive years of life lost due to traffic accident was estimated at 312 per 100,000 persons (3).

Economic loss due to traffic accident is considerable. Foregone earnings were estimated at 4.8 million baht for each accidental death (4). Total economic loss to society due to property damages, premature disability and death caused by accident was estimated at 1,571.8 million Baht in 1997 (1).

In Thailand, health insurance for traffic injury is regulated by traffic accident insurance (TAI) law[1]. This compulsory insurance scheme is the first public policy aimed at reducing the financial loss caused by the accident for all concerned parties. The policy implementation has experienced delays and difficulties throughout its history.

Insurance regulation for all motor vehicles was initiated by various government agencies during the past four decades. The currently enforced TAI law, entitled "Protection for Motor Vehicle Accident Victims Act 1992", was proposed by the Ministry of Commerce and became effective in April 5, 1993.

[1] This is the compulsory automobile insurance scheme, which is distinguished from the voluntary automobile insurance scheme under the Non-life Insurance Act B.E. 2535.

8.2 Development of the traffic accident insurance law

In 1954, the first kind of regulation on automobile insurance was enacted under the Land Transportation Act, a law that is enforced by the Ministry of Transportation. This insurance scheme provides the benefit amount of at least 5,000 baht covering damages of health and life of the third party [2]. This policy, however, mandates the insurance only for an individual who owns a truck for the transportation business.

The first insurance scheme affecting all types of motor vehicles was initiated by the Department of Police, Ministry of Interior in 1963. This mandatory policy has been proposed under the title "Motor Vehicle Insurance for the Third Party Act". The law, if enacted, would require the owner of a motor vehicle to have the vehicle insured for traffic injury and death. The scheme relies totally on private insurance businesses to provide the insurance benefits law to accident victims who are the third party.

The second and third drafts of a similar TAI regulation were proposed by the Ministry of Commerce nine years apart, in 1968 and 1977. The scheme still focused on third-party coverage and employed private insurance as the primary provider of insurance benefits. Provision under the new draft was improved with two additional features: (1) the preliminary coverage under the no-fault system; and (2) the development of the Central Fund with financial contribution from insurance companies. It was difficult for the public to accept these drafts and consequently neither of the three drafts were approved by the ministry.

Six years later in 1983, the third draft which was proposed previously by the Ministry of Commerce was considered under the leadership of Prime Minister Prem Tinasulanond who chaired the National Committee on Accident Protection. Justification of the revised proposal was that traffic accident victims had to bear substantial losses as a consequence of the accidents.

Without adequate financial compensation, several hospitalized patients had to pay out of their own pockets for health care expenses. Otherwise, the government would have to take on this financial burden. At that time, certain motor vehicles like buses, taxis, and trucks had already been mandated some kind of insurance, which was enforced by related transportation and traffic laws [3]. These kinds of public transportation, however, represented only about 10 percent of all registered vehicles. Clarity and practicality have been revised under several provisions for the fourth draft. For example, a legal measure dealing with the vehicle liable for accidental damages has been elaborated. A committee overseeing the proposed TAI law has been delineated and the Office of the Central Fund was created. The title of the proposed legislation has been changed to "Protection for Motor Vehicle Accident Victims Act". The draft took almost two years to finish. Because of administrative delay, the government completed the administrative term before the proposal was approved by Parliament.

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2 For the terms used in automobile insurance, an insurance company is the first party, an insurance policy holder and driver or passenger(s) in the insured vehicle are the second party, and pedestrians or other persons outside the insured vehicle are the third party.

3 In 1984, all kinds of taxis were mandated by the Traffic Act an insurance coverage for their passengers and the third party.

Before an inception of the current TAI law, two mass casualties from successive events of traffic accidents appeared in the newspaper headlines. The fifth draft of TAI law has been fast tracked by another Prime Minister Chatchai Chunhawan. Unfortunately, the proposal was terminated when the Thai military took control of the government.

In 1991, the Ministry of Commerce proposed the current version of TAI law. The proposal was approved by Parliament and became a law in April 1992. Because of uncertainties in public acceptance of the law and lack of government readiness in law enforcement, the original effective date was extended from 180 days to 360 days after the date of an official announcement of the law. For certain motor vehicles like motorcycles that have been registered before the original effective date of the law, this mandatory insurance has been postponed further. Problems of reimbursement, especially with insurance companies, was the main reason why the current TAI law had to be amended for the second time five years later in 1997.

8.3 Objectives of the TAI scheme

Road traffic injury is a catastrophic illness (whereby the injured must foot the hospital bills and go into debt) that typically results in an intensive use of health care resources. About one-fourth of the traffic-injured patients are admitted to hospitals [5]. These hospitalized individuals are patient subgroups that require relatively long stays and bear intensive resource utilization. The medium length of stay for traffic-injured patients in tertiary care hospitals in Bangkok is between 10 to 12 days [6]. Health care cost specific to the traffic injury has been reported as much as 71 percent of all trauma care costs [2]. For each traffic-injured patient, the amount charged by the tertiary care public hospitals, on average, may range from 12 to 26 thousand Baht [2, 6, 7].

With a relatively expensive health care, risk of financial loss for an individual suffering from traffic injury is very high. Dealing with tort liability [4] is a lengthy legal process. The traffic-injured patient often does not receive sufficient financial compensation for the damages. Proper care for the patient may be refused or delayed, especially by private health care establishments, if the patient cannot afford the expense. This may end up with discontinuity of care and subsequently increased risk of death. In public hospitals, unpaid trauma care cost is absorbed by the government budget allocated through the Public Assistance Scheme. Otherwise, the hospitals have to use the available charity funds or bear bad debts. If the accident resulted in mass casualty, financial burden to the society would be worse. Theoretically, insurance is a mechanism that can transfer the risk of financial loss from the insured patient to the insurance pool. The government is also convinced that the private insurance industry can play a major role in relieving the financial burden shouldered by the injured patients or their families and government public assistance programs.

The 1992 traffic accident insurance law is a public policy intervention aimed to ensure proper health care and financial compensation for the individual traffic-injured patient by guaranteeing immediate payment from an insurance system. Insurance benefits according to the Act would be provided not only to the third party (i.e., those outside the insured motor vehicle like pedestrians) as in the third party liability

4 A legal matter dealing with responsibility of an individual whose action results in damages to others.

under the voluntary auto insurance but also to drivers and passengers of the insured automobiles. This mandatory insurance scheme, however, covers only damages to health (injury and disability) and life as a consequence of road traffic accident. It is not intended for damages to the vehicles, personal belongings, and property.

8.4 Management of the TAI scheme

Benefit coverage and reimbursement process under the current TAI law are conditioned on characteristics of the second party (i.e., those inside the insured vehicle) and the third party (i.e., those outside the insured vehicle) involved in the accident. Table 8.1 below summarizes the TAI feature by type of traffic-injured patients and insurance status of the vehicles involved in the accident [8].

Table 8.1 Summary of TAI coverage and payment source by type of patients and TAI status.

Involvement and TAI status of the 3-rd party motor vehicle		Injured 2-nd party driver of		Injured 2-nd party passenger of		Injured bicyclist, pedestrian
		Insured vehicle	Uninsured vehicle	Insured vehicle	Uninsured vehicle	
Present and proved guilty	Insured	2-nd I co. (PC) 3-rd I co. (AC)	3-rd I co. (PC) 3-rd I co. (AC)	2-nd I co. (PC) 3-rd I co. (AC)	3-rd I co. (PC) 3-rd I co. (AC)	3-rd I co. (PC) 3-rd I co. (AC)
	Uninsured	2-nd I co. (PC) 2-nd I co. (AC)	CF (PC) Title 23(1)	2-nd I co. (PC) 2-nd I co. (AC)	CF (PC) Title 23(1)	CF (PC) Title 23(1)
Present but not guilty	Insured	2-nd I co. (PC) [1]	CF (PC) [1, 2] Title 23(1)	2-nd I co. (PC) [1] 2-nd I co. (AC) [1]	CF (PC) [1] Title 23(1)	CF (PC) [1] Title 23(1)
	Uninsured	2-nd I co. (PC) [1]	CF (PC) [1, 2] Title 23(1)	2-nd I co. (PC) [1] 2-nd I co. (AC) [1]	CF (PC) [1] Title 23(1)	CF (PC) [1] Title 23(1)
Owner absent	Stolen vehicle Title 23 (2)	CF (PC)	CF (PC)	CF (PC)	CF (PC)	CF (PC)
	Uninsured vehicle Title 23 (3)	CF (PC)	CF (PC)	CF (PC)	CF (PC)	CF (PC)
	Run away vehicle Title 23 (4)	CF (PC)	CF (PC)	CF (PC)	CF (PC)	CF (PC)
Not involved (2-nd party self injured)		2-nd I co. (PC) [1]	CF (PC) [1, 2] Title 23(1)	2-nd I co. (PC) [1] 2-nd I co. (AC) [1]	CF (PC) [1] Title 23(1)	Not applicable

TAI coverage:
PC = Preliminary coverage
up to 15,000 Baht for injury; 15,000 Baht for death; and up to 30,000 Baht for injury followed by death
AC = Additional coverage
15,001-50,000 Baht for injury and 80,000 Baht (PC inclusive) for organ loss, permanent disability, or death

Payment source:
2-nd I co. = Insurance company of the insured second party vehicle
3-rd I co. = Insurance company of the insured third party vehicle
CF = TAI Central Fund (Title 23 of the Act)

Note:
[1] If the damage was caused by intention or serious carelessness of the injured patient, the insurance company or the Central Fund may ask the injured patient to return the claim amount that has been paid (Title 31 of the Act)
[2] The injured driver who is the owner of an uninsured motor vehicle will be asked by the Central Fund to return the claim amount that has been paid plus 20% of the paid amount (Title 26 of the Act)

Source: Adapted from Health Insurance Office, Ministry of Public Health (1998) [8].

8.4.1 Benefit package

Insurance benefit under the TAI law is intended to be the first-baht coverage (i.e., without deductible or any patient cost-sharing requirements). According to the most recent amendment of the Act, the total amount of benefit per accident event is set at 5 million baht for insured automobiles with up to seven seats and 10 million baht for automobiles with over seven seats. Insurance payment made to an injured patient is based on the retrospective fee-for-service reimbursement system. Compensation for the damage to health is reimbursed according to the amount of health care resources that have been used. However, maximum benefit is capped at certain amounts and arranged in two tiers as follows.

(1) Preliminary coverage

Under the current TAI regulation, the preliminary coverage for health care expense is limited to 15,000 baht per injured patient. Health care that is covered by the preliminary compensation includes 1) pharmaceutical products, blood and blood constituents, electrolytes and parenteral nutrients; 2) artificial organs; 3) hospital room and board; 4) prehospital care including ambulance and emergency care; 5) ventilator and defibrillator; 6) medical supply; and 7) treatment and surgical procedure fee, X-ray fee, laboratory test and diagnostic fee, and physical therapy fee. The payment rate for each itemized charge is set at a standardized price schedule, which is the same throughout the country. This allowed charge is fixed for the first three health care groups described above. For the last four groups, the payment rate varies according to the hospital size: up to 50 beds, 50-100 beds, and over 100 beds.

Compensation for a death case is paid in the full amount of 15,000 baht. For an injury followed by death, the insurance benefit is set at the maximum of 30,000 baht.

(2) Additional coverage

Insurance benefit under the additional coverage is the compensation amount beyond the preliminary coverage. Currently, the additional coverage is set at a maximum of 50,000 baht for an injury. This benefit covers not only health care cost defined in the preliminary coverage but also forgone earnings (an indirect cost related to inability to work due to the injury) and other tort liabilities.

Compensation of 80,000 baht is paid in full for the resultant blind, deaf, mute, loss of genital organs, loss of extremities, permanent mental impairment and disability, or death. For an injury followed by organ loss, disability, and/or death, the maximum compensation is 80,000 baht. The preliminary compensation that has been paid is included in this maximum benefit.

8.4.2 Management organization

As previously stated, the TAI law is a public policy that relies on the private insurance business in carrying risk agreement on health and life damages due to traffic accident. The number of insurance companies has increased over time. Currently, there are almost 80 insurance companies (both domestically and internationally owned) administering over eight million TAI policies in Thailand. In 1997, a new company was jointly established by the insurance companies as mandated by the third amendment of the Act (Title 10). The primary function of this joint company is to handle claim services for the accident victims, especially in the region where there is no affiliation of the insurance company of the insured vehicle involved in an accident.

With an expectation of mass violation of the TAI law, Title 33 of the Act also provides an alternative payment source to the insurance industry by establishing a Central Fund. The Central Fund is a mutual financial contribution from the tax-based government budget and 10 percent of insurance premium collected quarterly from insurance companies. Department of Insurance, Ministry of Commerce that proposed this Law administers the Central Fund. Claim amount made to the Central Fund is capped at the preliminary coverage. Compensation from the Central Fund is restricted to the damage caused by an uninsured vehicle and the uncollected claim amount made to insurance companies. According to Title 23 of the Act, this circumstance applies to (1) an uninsured motor vehicle belonging to the guilty party who refuses to pay the full amount of the preliminary coverage; (2) a stolen vehicle; (3) an uninsured vehicle belonging to an unidentified owner; (4) a run away vehicle; (5) an uncollected preliminary coverage that has been reimbursed previously from the insurance company of the insured vehicle; and (6) a vehicle exempt from TAI law (e.g., that belongs to government agencies).

8.4.3 Contribution collection

TAI premium per motor vehicle ranges from a couple of hundred to a couple of thousand baht depending on the size of the vehicle and purpose of use. In general, public and mass transportation like buses, heavy trucks, and taxis pay more to the insurance premium than a personal car or motorcycle.

Table 8.2 Number of insurance policies and amount of premiums for TAI, 1993-1998.

Year	No. of policies	Direct premium	
		Total (thousand Baht)	Per policy (Baht)
1993	3,227,084	3,956,324	1,225.97
1994	4,410,236	5,154,121	1,168.67
1995	7,851,708	6,754,671	860.28
1996	9,536,287	7,694,982	806.92
1997	9,212,921	7,885,696	855.94
1998	8,033,654	6,296,613	783.78

Source: Department of Insurance, Ministry of Commerce (1993-1998) (9).

Table 8.2 presents insurance premiums charged by the insurance business for TAI. The direct premium per insurance policy, on average, decreases over time from 1,226 Baht to 784 Baht. This may indicate an increase in the number of the insured vehicles with low premiums like motorcycles.

8.4.4 Reimbursement mechanism

In general, filing an insurance claim under the current TAI regulation has to be done by the injured patient. This reimbursement process is the traditional indemnity insurance system. The patient has to pay out-of-pocket for the health care expenses, then submit the claim to an insurance company. The claim has to be initiated within 180 days after the accident occurs.

Reimbursement for the preliminary coverage is intended to be fast track. It is based on the no-fault system in which the claim process does not require a final agreement on which party causes the accident and consequently is liable for the dam-

ages. Payment has to be made by the insurance company or the Central Fund to the injured patient within seven days after receiving the claim (Title 25). The hospital that provides health care to the patient may be authorized as the patient agent in making a direct bill to the insurance company or the Central Fund. Documents needed for the reimbursement are minimal. This includes a hospital bill and patient identification. An additional police record is needed for claims to the Central Fund (Title 35). For death cases, a police record and death certificate are required.

Compared to the preliminary coverage, the reimbursement condition for the additional coverage relies on tort liability. Under the fault system, an insurance company of the insured party who is proved guilty in causing the accident is responsible for the additional compensation. The process of patient authorization to the hospital has to be approved by the insurance company prior to filing the insurance claim.

8.5 Current situation of the TAI scheme

Table 8.3 presents time trends in the total number of TAI policies and loss ratio occurred in the TAI business between the first year of TAI law enforcement in 1993 until 1998. When compared with the total number of registered motor vehicles, it shows the coverage of TAI. The loss ratio of insurance business is computed as the ratio between the TAI payment amounts (loss) and the insurance premium earned from the owners of vehicles carrying TAI policies. The financial status of the TAI Central Fund is also presented in the following subsections.

Table 8.3 Earned premiums and loss incurred in insurance business for TAI, 1993-1998.

Year	No. of policies		Earned premium	Loss incurred	Loss ratio (%)
	Total	% change	(thousand Baht)	(thousand Baht)	
1993	3,227,084	-	1,086,015	496,388	45.7
1994	4,410,236	36.7%	4,958,984	1,949,929	39.3
1995	7,851,708	78.0%	5,654,360	2,290,489	40.5
1996	9,536,287	21.5%	7,650,889	2,855,465	37.3
1997	9,212,921	-3.4%	7,196,908	2,719,594	37.8
1998	8,033,654	-12.8%	6,254,937	2,593,730	41.5

Source: Department of Insurance, Ministry of Commerce (1993-1998) [9].

8.5.1 Coverage

Under Title 7 of the Protection for Motor Vehicle Accident Victims Act, every motor vehicle registered or in active use in Thailand has to carry a TAI policy. Most of the motor vehicles exempt from the insurance (under Title 8 of the Act) include those belonging to government agencies which are estimated to be about 2.5 percent of all registered vehicles [10]. In 1993, the number of registered motor vehicles that were mandated an automobile insurance under the TAI law was estimated at 11 million [11]. Table 8.3 shows that during the first two years after the TAI enactment, less than half of the vehicles were insured. The number of insurance policies increased dramatically by 78 percent during the third year. The rate of growth in the number of policyholders declines in the fourth year (21.5 percent) and becomes negative thereafter (i.e., the decrease in the absolute number of insured vehicles). This is a coincidence of an economic recession that began in 1997 and resulted in the inactive

use of a number of vehicles available from car dealers and leasing companies.

An increase in the number of TAI policies over time reflects an increase in the number of registered motor vehicles carrying TAI. However, the total number of registered vehicles has been increasing over time (approximately 14 percent annually during the last decade as mentioned earlier). Despite an indication of increased accessibility to TAI policies [5], the number of insured vehicles in recent years is expected to be far below what it should be.

8.5.2 Revenue and expenditure

During the second to sixth year after the TAI enactment, the amount paid by insurance companies to traffic accident victims is approximately 40 percent of the premium earned from the insured vehicles. Annual financial surplus in TAI for insurance business ranges between 3.0 and 4.8 thousand million baht.

Until mid-1994, the TAI Central Fund earned 343.1 million baht from the government budget, insurance companies, and other revenues. The Fund has paid 16.2 million baht for the claimed preliminary coverage. The Fund accumulated to the net worth of 326.9 million baht.

8.6 Problems of the TAI scheme

8.6.1 Reimbursement problems

(1) Delay of claim payment and unpaid claims

A typical reimbursement problem encountered by the hospitals that file TAI claims to insurance companies is the delay of claim payment. The time period since submitting an insurance claim until receiving payment has been reported as 66 days, on average, in one tertiary care hospital (7). However, this reimbursement process can take up to 547 days.

Table 8.4 presents time taken from the date of claim filing to the date of payment received in Khon Kaen Hospital, Khon Kaen province.

Table 8.4 The delay of TAI claim payment in Khon Kaen Hospital, 1997-2000.

Year	Paid claims	Days taken until payment received		Payment taken over 7 days
	(Total number)	(Median, days)	(Maximum, days)	(%)
1997	1,548	51	587	100.00
1998	1,292	43	746	99.38
1999	1,068	46	618	98.22
2000 [1]	536	41	244	99.25

[1] Data until October 2000.

Source: Calculation by the author, based on TAI claim database from Khon Kaen Hospital Office of Health Insurance (12).

[5] There are numerous TAI business agencies located near the Motor Vehicle Registration Office providing vehicle inspection services free of charge to the vehicles that need inspection before license renewal. The TAI agencies are also available in convenient stores like Seven Eleven.

The private insurance business uses various strategies to discourage claim submission and delay the payment for the claims received. Certain insurance companies may request the claim documents more than what are required under the TAI law, for example, driver licenses, physician records, and police records for the preliminary coverage of health care. This may be the case when the companies suspect that the charged amount has been inflated to the maximum allowance. The companies may intentionally rotate their staff so often that the hospital loses contact [13].

As of the fiscal year end 1999, the unpaid amount claimed with insurance companies by the hospitals under the Ministry of Public Health accumulated to 224.7 million baht [14]. At Khon Kaen Hospital where Trauma Registry is well functioned and the Hospital Office of Health Insurance actively follows up patients and the TAI claims, the unpaid claim fraction is as high as 18 percent [13]. Table 8.5 summarizes the amount of TAI claims made to insurance companies and the proportional payment received by the Ministry of Public Health hospitals.

Table 8.5 TAI claims made to insurance companies and payment received by MoPH hospitals.

	Amount claimed (Baht)	Payment received (%)
Hospitals (57 provinces, 1996) [1]	129,171,651	92.2%
Hospitals (71 provinces, 1997) [1]	227,511,064	92.7%
Hospitals (73 provinces, 1998) [1]	344,700,708	72.9%
Jakraj Hospital (Jan-Apr 1999) [2]	124,930	95.5%
Khon Kaen Hospital (1999) [3]	13,323,528	82.0%

Source: [1] Health Insurance Office, Ministry of Public Health, 1996-1998 [14].
[2] Manuthura C, Kittivisith S, Plangklang S, et al., 1999 [15].
[3] Khon Kaen Hospital Office of Health Insurance, 2000 [12].

Justification of an involvement of private insurance in the TAI scheme is to promote the role of insurance system in relieving the financial burden borne by the government, not to increase the profit of the insurance business itself. Reimbursement for the preliminary coverage of health care is expected to be an instantaneous process (i.e., within seven days after the claim) without the burden of proof on who caused the accident (i.e., no-fault system). However, reports for the TAI financial status of the insurance business suggest that this objective of the TAI law has not been met. The benefit amount paid by insurance companies is only about 40 percent of the amount earned through the insurance premium (Table 8.3).

(2) Fee-for-service reimbursement with scheduled price

Payment for health care of traffic injury under the TAI regulation is based on the retrospective fee-for-service reimbursement system. The total charge is a product between the volume of use and the price per unit of use. Under this reimbursement process, both the volume of health care resources used by health care providers and the unit price charged by hospitals can be deliberately inflated in order to compensate for the unpaid claims. This is one of the reasons why insurance companies delay the payment and often request for additional claim documents.

A national survey in 1994 reported that the proportion of the hospitals that had average charges above the preliminary coverage varied with location, size, and affili-

ation of the hospitals [11]. Hospitals in Bangkok Metropolitan area, with larger sizes, or privately owned hospitals bear a higher health care expense than the smaller sized, publicly owned hospitals in provincial areas.

The unit charges or payment rates for health care that is allowed under TAI preliminary coverage are set by the Ministry of Public Health. These payment rates are considered higher than the usual and customary rate charged by public hospitals. If all hospitals, especially those that belong to the government, decide to charge at the scheduled price, this would raise the financial burden to the insurance companies. However, 67.4 percent of the private hospitals did not use the standardized rates, compared to 32.3 percent of the public hospitals [11]. Ironically, the primary reason for not using the scheduled price given by the surveyed hospitals is that the fee schedule for many items was considered too low.

8.6.2 Barriers to accessibility to TAI benefits

A fundamental problem of the TAI scheme for the population suffering from traffic accident is an unequal access to the benefit formally provided by TAI law. This problem might result from the fact that very few traffic-injured patients are aware of their legal rights in receiving financial compensation according to the law. In fact, several obstacles are the result of payment conditions set by the law. To get the compensation, as in an indemnity insurance system, an injured individual is required to submit a claim for the damages to either an insurance company or the TAI Central Fund. If authorized by the injured patient, the caring hospital may do the direct billing to the company or the Fund.

A national survey of 597 public and private hospitals (with the capacity of at least 30 beds) in 1994 found that only 10.9 percent and 24.9 percent of the hospitals filed the TAI claim for all outpatients and for all inpatients, respectively [11]. The TAI claim proportion is much lower for the private hospitals (2.2 percent for outpatients and 12.4 percent for inpatients) than the public hospitals (13.3 percent for outpatients and 28.5 percent for inpatients). By the baht amount aggregated over hospitals, the fraction of claim made to TAI varies with the affiliation, size, and location of the hospitals. Private hospitals with smaller sizes located in Bangkok usually have a higher claim fraction (by baht) than their counterparts. The fraction of claim paid by insurance companies (by baht) also follows this pattern of variation.

The proportion of the traffic-injured patients who submitted TAI claims through a hospital varies considerably among hospitals. Table 8.5 presents the proportion of the traffic-injured patients who filed the TAI claims in each of the selected hospitals of the Ministry of Public Health.

Table 8.6 TAI claims for traffic-injured patients admitted to MoPH hospitals.

	Number of Traffic-injured patients	TAI claims made (%)
Rajavithi Hospital (Jul-Sep 1995) [1]	85	34.1
Lerdsin Hospital (Jul-Sep 1995) [1]	115	44.7
Nopparat Rajathanee Hospital (Jul-Sep 1995) [1]	100	63.5
Maharaj Nakhonratchasima Hospital (1998) [2]	6,600	18.9
Jakraj Hospital (Jan-Apr 1999) [3]	281	24.9
Khon Kaen Hospital (1999) [4]	3,603	30.6

Source: [1] Sumiratana W, 1998 (6).
[2] Koteprathum A, 2000 (7).
[3] Manuthura C, Kittivisith S, Plangklang S, et al., 1999 (15).
[4] Sriwiwat S, Homjoo S, Kulleab S, et al., 2000 (2).

The number of TAI claims for the proportion of all injuries ranges from18.9 percent to 63.5 percent. Even though the TAI law is intended to provide the preliminary compensation under the no-fault system, this objective has not been met. Several reasons are behind the TAI-unclaimed fractions.

(1) The insured

The insured individual who suffers from traffic injury has several reasons for not claiming TAI. The insurance premium for the vehicle involved in an accident is expected to increase in the following years. If the health care expense is lower than the expected increase in the premium, an individual may not want to submit the TAI claim.

Data from Jakraj Hospital showed that among the patients injured by the insured vehicles, 93.1 percent did not file the TAI claim because they did not have a valid driver's license and did not want to be involved with the police. Moreover, if the damage is caused by intention or serious carelessness of the injured patient, the insurance company or the Central Fund may ask the injured patient to return the claim amount that has been paid (Title 31 of the Act).

(2) The uninsured

In the first year of TAI law enforcement, written premiums for automobile insurance (3,337.7 million baht) were much less than the estimated premium (6,383.4 million baht) that was based on the number of motor vehicles mandated by TAI (10). This disparity indicates that a large number of motor vehicles do not carry or pay for insurance policies.

(2.1) Biased selection by insurance companies

Drivers and passengers of motorcycles represented 77.0 percent of all traffic-injured patients admitted to Khon Kaen Hospital Trauma Center in 1999 and 61.2 percent, 71.3 percent, and 80.0 percent at Rajavithi Hospital, Lerdsin Hospital, and Nopparat Rajathanee Hospital in 1995 (2, 6). What is not known is the number of motorcycles that do not carry an insurance policy. Administrative readiness causes the delay of law enforcement to this specific vehicle type, which represents the majority of registered vehicles. Certain insurance companies may refuse to provide insurance coverage for this high-risk group. Whether adverse selection problem occurs in TAI is not well understood, given the fact that the insurance premium for this type

of vehicle is relatively low and the TAI market is very competitive.

(2.2) Limited coverage for the uninsured

In general, insurance benefit for the accident victims caused by uninsured vehicles is limited to the preliminary compensation. Under Title 23 of the TAI law, the preliminary compensation is provided by the TAI Central Fund. The patients may not be aware of this special provision if health care expense is not that high. Other patients who are inside the uninsured vehicle may hesitate to file a TAI claim to the Central Fund, especially if they are the owners of the uninsured vehicle. According to Title 26 of the Act, they might be asked by the Central Fund to return the reimbursement amount plus 20 percent of the amount that has been paid. In 1994, the estimated claim amount made to the Central Fund (16.2 million baht) was much less than the claim amount made to private insurance companies (1,950 million baht).

Data from certain hospitals confirm this underlying problem. A study in 1999 from Jakraj Hospital showed that 88.2 percent of the TAI-unclaimed injuries were caused by uninsured vehicles and 85.5 percent of the patients chose to pay out-of-pocket for the health care expense [15]. Other patients who had insurance coverage from other benefit schemes including Civil Servant Medical Benefit, Social Security, Workmen Compensation, Voluntary Health Card may choose to be reimbursed through these other schemes with varying fractions.

8.7 Roles of private insurance and challenges in the financing of health care for traffic injury

Whether or not private insurance should play a dominant role in the universal coverage for catastrophic illness like road traffic injuries is a debatable issue. The value of health insurance is typically attributed to the concept of risk transferring from an insured individual to an insurance company. Based on this conventional paradigm, people would be willing to pay a small amount of insurance premium in order to avoid uncertainty of a large financial loss. In the voluntary insurance system, the fair premium reflects the expected loss and the degree of risk aversion of the insured person. That people prefer certainty to risk is based on the theory of expected utility maximization [16].

Expected utility theory has been challenged by those who question the concept of rational choice [17]. The expected utility theory assumes that people would be indifferent to two gambles if the probabilities and the wealth endpoints are the same. Psychologists and others have found that choices are more irrational than what the expected utility theory proposes. For example, Prospect Theory concludes that the way the gambles are framed systematically influences choices [18]. According to the Theory, people are risk averse when the gamble is expressed as a gain but risk seeking when expressed as a loss. Because the purchase of health insurance represents trading an uncertain loss (i.e., health care expense) for a certain one (i.e., the insurance premium), the Prospect Theory suggests that people might not want to buy the insurance! This may explain why the insurance for injuries from traffic accident cannot be voluntary. Even though insurance is mandated for all motor vehicles by the TAI law, a large number of motor vehicle owners do not carry the insurance policy[6].

[6] A provision of TAI law requiring the insurance policy submitted before the annual renewal of motor vehicle license is interpreted by some officers as the provision mandating exclusively for the new vehicles.

Some critics argue that health insurance is a mechanism for gaining access to health care that would otherwise be unaffordable [19]. Based on this paradigm, the value of health insurance is the expected consumer surplus from the health care services that would otherwise be inaccessible.

If accessibility to health care for the traffic accident victims is a priority issue, both TAI- unclaimed fraction and TAI-unpaid fraction seem to suggest that the objective of TAI law has not yet been achieved. The main interests of private insurance companies are to raise their own revenue through premium collection and to limit payment to the insured. This profit-oriented strategy is well justified for the voluntary not compulsory insurance systems. Loss ratio of the compulsory TAI scheme (40 percent of direct premium) was lower than the loss ratio of the voluntary auto-insurance scheme (65 percent of direct premium). The reported loss ratio is far below what a not-for-profit business should bear (the loss ratio of about 80 percent). The national survey of hospitals reported that only 7.3 percent of the hospital administrators think that the patients receive a better deal of TAI than the insurance companies whereas 40.7 percent think that the patients are worse off [11].

If in fact the private TAI business enjoys a great deal of financial surplus and the financial status of the TAI Central Fund looks very promising. In this case, the social insurance program financed by a separate trust fund would be a viable alternative. Revenue for this special fund may be generated from an earmarked tax or from sources relating to use of motor vehicles, like gasoline sales tax or a motor vehicle license fee.

An alternative to the tax payment system would be the existing insurance premiums collected by the private insurance business. However, revenue from the collected premiums will be transferred to the public-organized fund. Part of the fund will be paid to the insurance companies for operating costs of premium collection, but most of it will be paid to health care facilities caring for patients with traffic injuries.

For the claimed individual, the traditional fee-for-service reimbursement system tends to create doubt of hospital overcharging to insurance companies. Paying for traffic injury based on the Diagnostic-Related Groups (DRG) has been proposed as an alternative to the fee-for-service system. Rather than relying on the intensity of treatment procedure, relative cost weight based on DRG is a function of severity of illness. Patients classified in the same DRG group usually require similar health care resources. The accident-related DRG can be classified into 70 groups [20]. For the acute inpatients, the relative cost weight ranges from 0.135 to 5.739. Under the DRG-based payment, the hospitals are believed to be aware of providing care at the average rather than as outliers. It was reported that if the DRG-based payment for traffic injury was implemented with patient cost-sharing for the unnecessary health care procedures, it would have saved 250 million baht in 1995 [20]. It would be the reimbursement system that encourages cost-consciousness to health care providers. To be fair to the providers, a provision of TAI law that puts a ceiling on the payment amount should be repealed.

For chronic cases, the DRG-based payment system should be supplemented with other mechanisms to ensure continuity of care for traffic injuries, including rehabilitative care and supportive care for patients with permanent disabilities. The main challenge is: how can we integrate the payment mechanism for traffic injuries into the universal coverage of other illnesses?

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CHAPTER 9

Community Saving and Health Welfare Scheme

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9.1 Introduction

About 40 years ago, Thai rural communities practiced subsistence farming. They did not have to accumulate any surplus of crops because they stored enough rice in the barn to last until the next harvest. There was no need for cash since they bartered goods. Exchange meant sharing. It was a moral economy, where "moral" values prevailed.

The predominantly rural communities lived side by side with nature where food was the basic means for living. As the ancient saying goes "There are fish in the ponds and rice in the fields".

Recalling the past may sound nostalgic and idyllic. However, this is not the yearning for a lost paradise - it simply means that communities are being reminded to go back to their roots. Ask elderly people in rural communities what kind of problems they were faced with in the past, and they will talk of their many hardships. Many people became ill and could only be treated by traditional healing methods-there were no hospitals. Droughts and floods caused rice shortage but there were no rice banks. With no official law enforcement, thieves and bandits stole cattle in the villages. Each year, a household had to pay four baht in tax money to the state. If they did not have that amount, the men had to work for the government. Life was not easy.

However, our ancestors survived, and we are here. They survived because they lived in the community, supporting one another, and sharing what they had from labor to rice, food and medicine. They had a good relationship with their environment - with the forests and the water sources.

Within the past 40 years, this relationship with nature has rapidly declined in the name of modernization and development. Cash culture substituted the barter system, competition replaced sharing, and accumulation meant self-reliance. Although this system has its good points, many people fell into debt, the forests have been ravaged and has declined from 60 percent 40 years ago to about 20 percent today. Cash cropping and the use of chemicals depleted the soil of its nutrients. Deforestation caused floods and dried up the water as well. Factories have caused widespread water pollution.

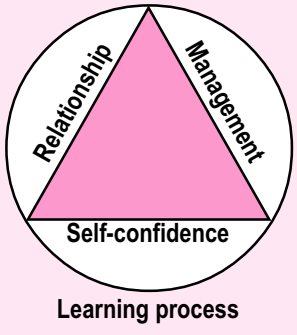
The family and community relationship has also deteriorated. Many people have had to leave home to find work in urban centers or find new farming areas in the forests, although this is illegal. Natural resources, agricultural products, handicrafts,

cash and labor are not managed by villagers, but by "outsiders" who may be individuals, groups, organizations or institutions.

It took decades for a few communities in rural Thailand to gradually find a way out of this critical situation. Four major components are responsible for this new stability:

1. Regaining self-confidence. People have rediscovered their potential, true values and strengths in the local wisdom. They realize that they can only rely on themselves and on one another. They have started to go "back to their roots", renewing and adjusting traditional values for modern day situations.
2. Community-based organizations and networks (local, provincial, regional and national) have been established to teach people to renew their relationships with their community and environment.
3. Re-management of resources. Villagers now manage their own land, water, forest, products, cash and labor. In this way, they work to help their own communities and sustainability is ensured.
4. Re-learning. The new process of learning is the most important component of the community strength and stability. Community-based organizations and their networks are actively organizing re-learning programs from which they learn to regain self-confidence. They learn to rediscover their social capital, their local wisdom and traditional values. They learn to manage their resource and products. They learn how to manage "community banking", or "savings group". They learn how to develop their own health and welfare systems.

Figure 9.1 Community fund for community welfare.



By exploiting local resources, weakening local communities, and isolating people from one another, modernization has left villagers without any security. There is no social insurance for farmers and independent workers - the two categories of cheap labor. If they want security, they have to create it themselves.

Community development became familiar to rural people about two decades ago, when some government and non-government organizations started to implement projects in communities which were considered the poorest. Rice and buffalo banks, cooperative shops and savings group are classic examples. Many of these projects failed and many communities broke down because some individuals fought for self-gain, interest and shares.

Only about 10 percent of the approximately 40,000 savings cooperatives have survived and continue to grow. These include the informal Savings Groups set up by the Department of Community Development, Ministry of the Interior, the Savings Cooperatives within various forms of cooperatives, the Savings Schemes initiated by other government organizations, Credit Union cooperatives, theVillage Bank jointly promoted by an NGO and the Ministry of Agriculture and Cooperatives, and some other forms of savings set up by local community-based organizations.

A savings group in any form is not a bank but part of the community welfare system. It has to do with a learning process that enables people to regain self-confidence by relying on themselves and on other community members. The savings group should be considered part of the community development program and must not be compared to the conventional banking system. Cash is a means of the community development process and brings people together.

The growth of many savings groups shows that the village bank is not the only means of security. The real goal is the quality of life in the community. This is the reason why these savings groups put more focus on learning rather than on the amount of money in the group, and are ready to have dividends set up for the welfare of the community members, such as health care, schooling and care for the elderly and the handicapped. It has taken some villagers many years to save 30 to 100 baht a month to collectively accumulate millions.

9.2 Songkhla saving groups and community welfare

Most of the savings groups in Songkhla province, who are among 10 percent of the successful, were set up during the end of the 1970s and the beginning of the 1980s. A pilot project of the Department of Community Development, the Ministry of Interior, each group gradually found its own style. The 1988 Village Foundation survey of 35 successful savings groups in this province confirmed that four savings groups could be considered role models. They are as follows:

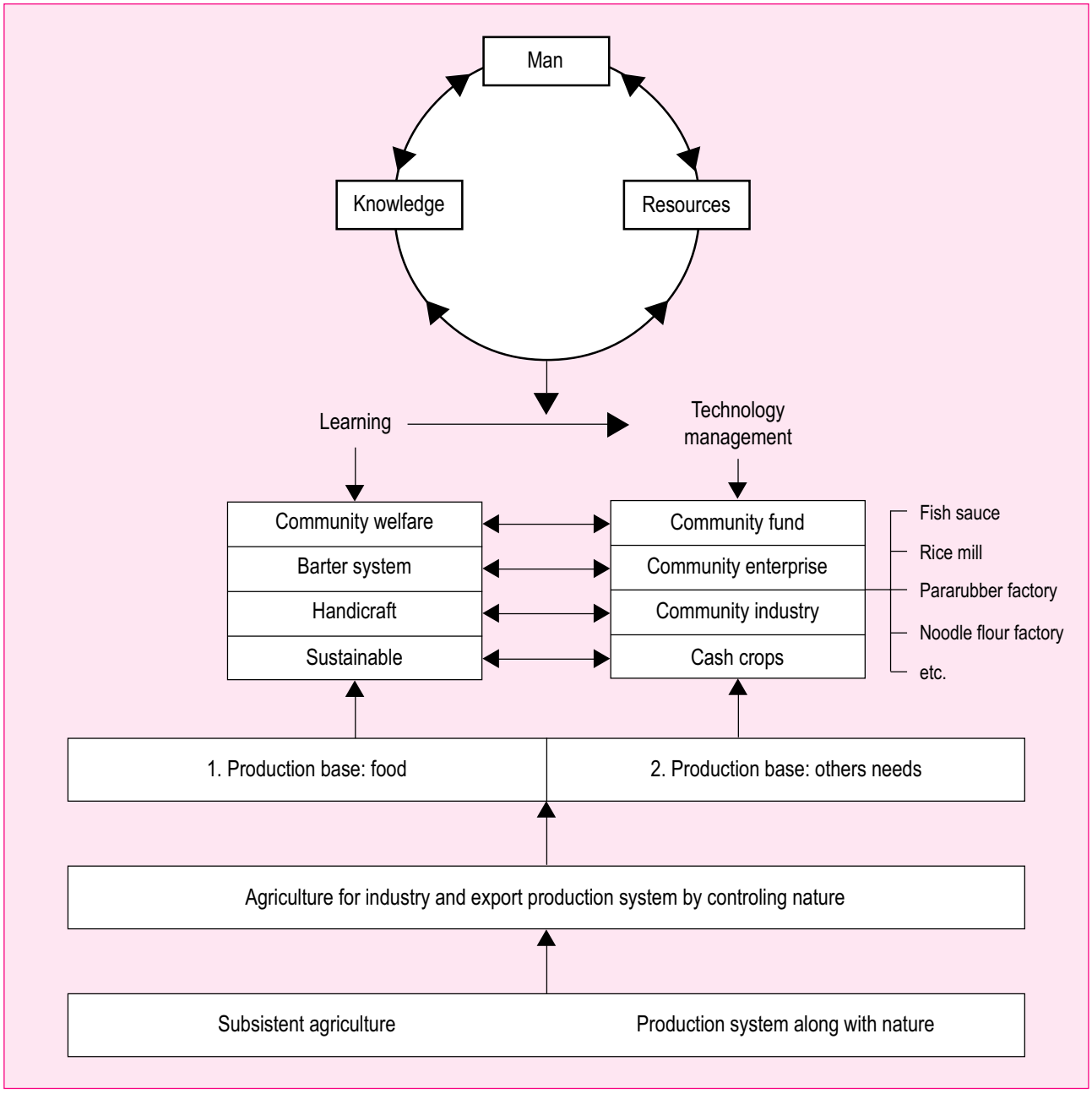
9.2.1 Namkhao

Namkhao is a sub-district of Chana district. The savings groups in 11 village communities here are exceptionally unique. The health welfare scheme, part of the savings group, was established in 1983. The founder of this savings group, a teacher, named Chob Yordkeo, spent about three years to pave the way, visiting 11 communities after school. He started a savings group in his school first, then extended the program to 12 other communities. The aim of these savings groups was to improve the quality of life. In other words, to save money for individual and family purposes, and for collective enterprises, such as investing in cooperative shops.

In 1984, 11 health care funds were set up in 11 communities, as well as 11 medicine funds, and 11 community health card funds.

Members who live in the community can save not less than 10 baht and not more than 100 baht a month. At the end of the year each member receives 10 percent interest of the savings (the interest rate for loan was originally 5 percent per month). At the end of the year, the profit is divided into two equal parts. The first part is divided to the “share holders”, the second part is used for welfare funds (e.g., the health care scheme).

Figure 9.2 Holistic approach for community development.



The health care scheme of the Namkhao savings groups is as follows:

For inpatients:

1984-1985	30 baht/ night, not more than 1,000 baht/ year
1986-1987	60 baht/ night, not more than 1,300 baht/ year
1988-1989	90 baht/ night, not more than 1,600 baht/ year
1990-	120 baht/ night, not more than 1,900 baht/ year

For outpatients:

1984	10% of receipt	not more than 200	baht/ year
1985	20%	400	
1986	30%	600	
1987	40%	800	
1988	50%	1,000	
1989	60%	1,200	

1990	70%	1,400
1991	80%	1,600
1992	90%	1,800
1993	100%	2,000

The receipts accepted are from the Community Medicine Fund (a village community center which provides medicine to community members), Namkhao Health Center, Nathawi District Hospital, Chana District Hospital, and Songkhla Hospital.

In the case of death, the family receives 500 baht (1984), and 1,400 baht (1990 to present day).

These are the general rules. However, each savings group has modified these rules to suit their group. Today Namkhao sub-district has 19 savings groups. Many of the villagers are members of more than one group and they are able to claim for health care expenses from more than one group. In practice, if someone is ill and has to go to the hospital, that person may receive more than 100 percent every time throughout the whole year. This has to be understood in the context of these particular communities. There is a ceiling to the scheme. It does not mean that this could be done without limits, every time for the whole year. On the other hand, villagers understand that no healthy person wants to go to the hospital. The expense is not only for health care, but also for traveling to the hospital, and for relatives to visit them. It also covers the convalescing period at home.

In the Deun Phen Savings Group (Full Moon Savings Group), the villagers gather at the temple on every full moon day to participate in religious rites as well as to participate in savings group activities.

In the Kreuyart Savings Group (Relatives Savings Group), all relatives are invited to become members. Some live in other districts and provinces, even in Bangkok. Founded in 1992, today it has about 300 members, 2.2 million baht's worth of savings, and 1.8 million baht in welfare fund.

The Relatives Savings provides 200 baht/night for inpatients (not more than 2,400 baht/ year), 60 percent of the receipt for outpatients (not more than 1,700 baht/ year), 6,000 baht in case of death, and 10 baht/ month for electricity.

The Satri Phitak Wai, exclusively for unmarried women and widows, implemented a new regulation at the beginning of 2000, paying 100 baht/night for inpatients, and 100 baht/night for anyone who travels to take care of the patient in the hospital. This has proved to be a good incentive. The patients do not not feel lonely anymore.

9.2.2 Temple savings group

In the Wat Utapao Savings Group in Haad Yai, Songkhla province, the members who save 30 baht per month, do not receive any interest but those who borrow must pay 12 percent interest. This interest is used for community development and welfare.

The Tanakarn Cheewit (Life Bank) was founded by the former abbot of Utapao temple (1983), who was able to convince the villagers that if they saved one baht a day, they could raise a large fund for community development. According to him, saving one baht a day or 30 baht a month is like praticing the Dhamma (the Teachings of the Buddha) and to share what one has with others in the community. The member should not expect any interest, but he /she can expect to see a better community and

a better life. Today many "life banks" have been set up.

A similar savings group was established in the Utapao community (1984). Two other groups of this type, Wat Donchai Group and Wat Kutao Group, were founded in 1990 and 1991 respectively.

The principles of these savings group are:

1. To promote a safe lifestyle in the community.
2. To promote community spirit whereby members give to the community.
3. To observe the basic principles of Buddhism.
4. To promote group consensus.
5. To work in small groups named after Buddhist precepts.

The members meet at the temple every month. They save 30 baht, repay or take the loan, listen to the preaching of the monks, discuss actual issues in the community, share information, offer food to the monks, and have lunch together.

The interest rate or "profit" of the savings group has been used to support various activities such as:

1. Provide loans with low interest to members.
2. Support basic health infrastructure, such as toilets and clean drinking water.
3. Support income generating activities to members and women's groups, such as planting oranges in the community, growing non-chemical vegetables and making handicrafts.
4. Support learning activities for members through study trips, seminars, and training.
5. Provide scholarships to children and youth.
6. Provide funds to community schools and lunches for school children.
7. Provide health care and welfare for inpatients and outpatients at health centers and state hospitals.
8. Provide financial assistance to members affected by natural disaster.
9. Provide financial assistance in case of the death of a family member.

Since the beginning of 2000, the three groups have received a matching fund from the Social Investment Fund. This fund is mostly used for community projects, such as clean drinking water, an environmentally-friendly "pub" for youth (to discourage them from going to the busy and sleazy town of Haad Yai in the evening), and to encourage women's income-generating groups

9.2.3 Klongpia

The savings group at Klongpia (a sub-district of Chana district, Songkhla province) was founded in 1980 with 51 members and 2,850 Baht. Presently it has about 5,000 members with about 90 million baht of savings and a revolving fund.

The members are mostly from 10 village communities of Klongpia, with a small minority from other sub-districts. There is one central committee with representatives from 12 sub-groups from the villages. Each of the 12 sub-groups manages savings and loans by itself, and shares the surplus with other groups.

The interest rate for loans is 14.40 percent per year or 1.20 percent per month. The interest rate for members is 13.00 percent per year. The margin is therefore only 1.40 percent. But this is sufficient for this savings group to provide a substantial welfare scheme to its members.

There is no "NPL" and the overhead expenses are low. If some members have difficulties in repaying, the committee and community members will usually help

them to find a way out. This savings group, like most others, operates only one day a month, with the exception of bookkeepers. Members save, repay, and take a loan, all in one day.

Apart from the health welfare fund, there are other funds, such as

1. Fifteen scholarships per year
2. Natural disaster. Families affected receive up to 50,000 baht
3. Death of a family member, 5,000 baht (increase of 500 baht per year).
4. Land fund. Members who have no land are eligible for a loan without interest to purchase land.
5. Welfare fund for the elderly and the handicapped

New funds which are about to be established are aimed at covering welfare for all ages, all groups, in all areas of the community.

9.2.4 Nawa

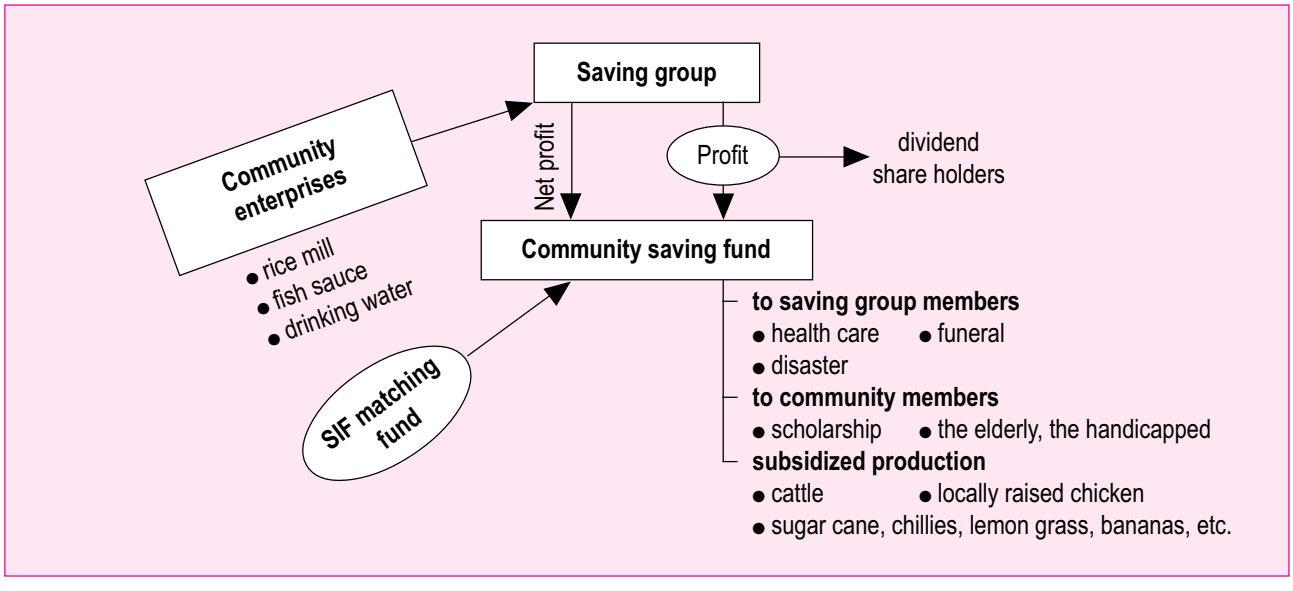
The savings group at Nawa (a community in Chana district, Songkhla province) has about 1,400 members and about 27 million baht of savings. Founded in 1979, it has three basic principles: a good system, appropriate regulations, and high moral values.

Although this is a large Buddhist community, there is no Buddhist temple here. There is a community center which plays an important role in coordinating all kinds of collective activities, from rice mills, cooperative shops, drinking water supply, office for savings group, funerary rites, store for all assets of the savings group, meeting place, etc. There are to date about 61 welfare funds in this community. These welfare funds include all kinds of activities and assets, e.g., health care, cattle, rice mill, drinking water, tents, tables, chairs, dishes, glasses, folks and spoons, kitchen utensils, etc.

As for the health care fund, Nawa pays bills that do not exceed 2,000 baht per family per year.

The above savings groups as well as the 21 savings groups which received 12 million baht of matching funds from the Social Investment Fund can be seen in figure 9.3.

Figure 9.3 Social investment fund management.



9.3 Self-help community health

Besides the four distinguished savings groups, more than one hundred others in Songkhla province also have a health care welfare scheme. In Trad province, bordering Cambodia, Phra Acharn Subin Panito, a Buddhist monk, who trained with. Chob Yordkeo in Namkhao in 1992, returned to start promoting savings groups. Within less than six years, the number of savings groups in this province reached about 125, which is about half of the total number of villages in Trad. Today there are about 150 groups. All have health welfare schemes. In Chanthaburi province, Phra Manat Khantithammo, another Buddhist monk, trained under the monk Phra Acharn Subin, and started similar projects in his province. There are today 106 savings groups in Chanthaburi province. All have health care welfare schemes, and welfare funds for the elderly, and funds for death in the family.

All these savings groups aim to cover the total expense of health care of their members. They have requested the government to provide matching funds for their welfare funds. Songkhla has succeeded in 1999 to obtain about 12 million baht from the Social Investment Fund to match the welfare funds of 21 communities. This means that if one savings group has 100,000 baht of welfare fund, it will receive a matching fund of 100,000 baht. Nawa has about two million (the value of the 61 welfare funds) of welfare fund, it has also received two million from the matching fund.

The matching fund is managed by the savings group to increase support for poor members, accelerating the accumulation of funding to start a collective enterprise, and to start a new scheme on community health.

All of these activities are interrelated. The communities are aware that it would not be possible to pay all hospital bills to all members. They need to promote a self-help community health system at the same time. There should be campaigns to promote health care as the people's responsibility. Initiatives and measures are presently being developed as follows:

1. Promote a healthy nutrition and a healthy lifestyle with a good working environment. Communities should learn how to produce their own food as much as possible and avoid chemically processed foods. They should be aware of the need to preserve and conserve the environment.
2. Promote the learning and use of traditional health care, particularly when and how to use herbal medicines, traditional massage, and how to grow and process herbs for community use. Learn the basics of modern and traditional health care.
3. Learn how to create community funds to cover hospital bills.
4. Participate in community decision making on the health system and its management. This involves health reform and management of health centers at the sub-district level, community hospitals at the district level, and provincial hospitals.

Discussions among communities during recent years have centered on health systems and health care. Health issues are one of the major causes of family debt. If one family member is hospitalized because of accident or serious illness, the family must bear a substantial amount of debt, adding up to existing debts. This puts the family in a vicious cycle of debt with practically no way out.

It is true that there is a "health care" system for families. A family with five

members pays only 500 baht per year for health care in a state hospital. But it is not that simple. The patient risks poor service, being treated as a second class citizen and he or she may be prescribed second class medicines too. Also, medication is limited. HIV/AIDS patients will not receive high quality medicine if they do not pay at least part of the cost.

Although many savings groups can afford to pay hospital bills for its members, new problems have come up. Some hospitals know that some "poor villagers" now can afford to pay the bills, and have started to bill the patients at due cost. The issue is not whether a patient can fully foot the bill but has to do with the self-help health system, which should be part of the whole development program.

In 1999 communities in Songkhla prepared to make the following proposal to concerned parties in the health care system.

It was proposed that the state should match health care bills in the following way:

Place	Local Contribution	State Contribution
1. Health center (sub-district)	100	
2. Community hospital (district)	75	25
3. Provincial hospital (province)	50	50
4. Specialized hospital	25	75

This was an initial proposal from communities in Songkhla, who believed that there must be better ways than the existing health care system. However, when the matching fund scheme from SIF was granted, the communities found that it would be better to have matching fund schemes that have been tried for several years.

There were even suggestions from some communities that they should one day pay for highly qualified doctors from the urban areas to work at their health centers two or three days a week. Apart from immediate care and good service, the villagers would feel a sense of pride in being able to employ the services of qualified doctors.

Most villagers have been given poor health service and they need recognition and respect. Many villagers feel a sense of pride when they ask for a receipt at the hospital because they can be repaid by their savings group back home in their villages.

Presently communities, specialists and researchers should work together to bring about a multi-faceted program on health systems at both the community and policy-making levels.

The community has a rather weak linkage with the policy-makers. There is, for example, not even an appraisal of all savings groups in Thailand by any government organization or NGO. No one knows exactly how many savings groups are still in operation. Results are only estimated and not a statistical or analytical survey. The last survey research of this kind was implemented by the Village Foundation in 1988. The situation has changed since then. The last in-depth research into 35 successful savings groups in Songkhla and Nakhon Si Thammarat was also implemented by the Village Foundation. Of course the surveys should be interrelated.

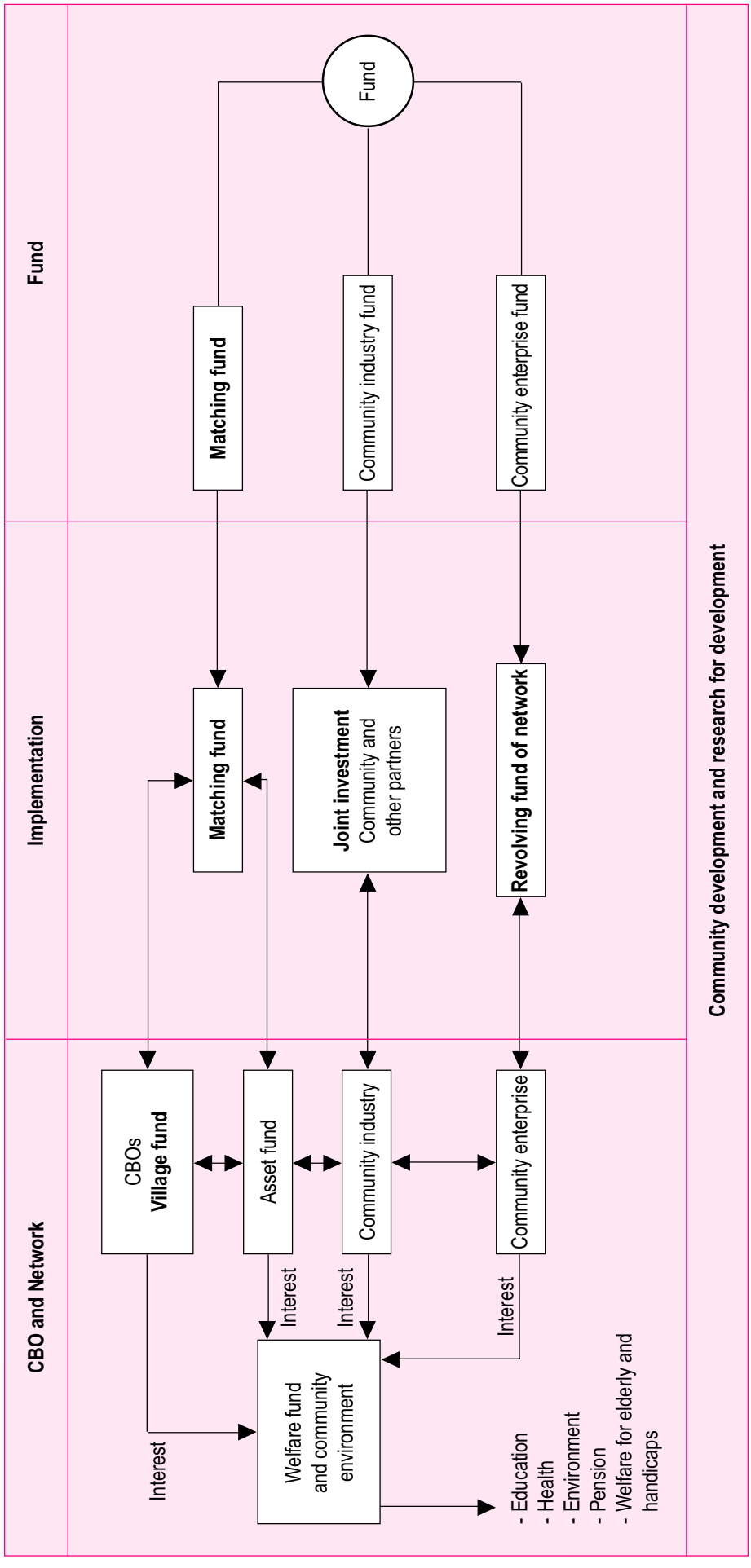


Figure 9.4 Development fund management to strengthen communities.

PART IV:

Tools and mechanisms for health insurance reform

CHAPTER 10

Diagnosis Related Groups (DRGs) Development in Thailand

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The Diagnosis Related Group (DRG) is a patient classification system for inpatients that has been used in health care finance mechanism in many countries [1]. Because DRG requires a minimal data set (diagnosis, operating room procedure, age and discharge status) to classify into different groups, it was well researched before being considered an alternative for the Thai health financing system. This paper presents the development of DRG in Thailand, namely experiences when it was used in the financing of the low-income card scheme. Finally recommendations were made for further improvements of DRG and the context for being used under the universal coverage policy.

10.1 The needs for a case-mix indicator

Health insurance systems in Thailand changed dramatically during the 1990s. From the systems that relied heavily on user fees at the point of delivery, the first formal health insurance - contractual model on a capitation (a fee of so much per head) basis has been footed in the Social Security System (see chapter on SSS). Success stories from the capitation payment have created the awareness that the health financing mechanism is far more important than being the owner of health services. Other health schemes (e.g. the low-income card scheme) tried introducing the capitation concept to their traditional budget allocation formula.

Although capitation payments have brought success rather than failure [2,3], alternative payment systems have been explored to reduce the effects of under servicing inherited with the capitation payment. The casemix system is an attractive alternative with success stories from many countries in Europe and Australia. Casemix is the generic term for the patient classification systems, which cover inpatient, outpatient, sub-acute and non-acute care, etc. (Diagnosis related group or DRG is one of the casemix systems for classifying acute inpatient care according to hospital resource uses). The casemix system is worth implementing in the Thai health system because:

- Many insurance schemes which pay providers on a fee-for-service basis still exist. These include the Civil Servant Medical Benefit Scheme (CSMBS), the Traffic Accident Protection Scheme (TAPS), the Workmen's Compensation Scheme (WCS). These public-financing schemes contributed more than 20 billion baht in 1999.

- The insurance schemes in Thailand do not cover the whole population. The allocated budget mainly in the Ministry of Public Health (MoPH) does not cover total costs of the non-insured. A number of patients have to pay user fees (on a fee-for-service basis) at the point of delivery at all public hospitals, and certainly at private hospitals.
- Cross-boundary flows for service utilization are enormous. The flows include inter-provincial and district cross-boundaries. Provinces or districts with capitation budget must be responsible for the by-pass cases, as well as referred cases. Therefore, capitation payment does not exclude the complementary roles of other types of payment (as can be seen in the SSS).

The first casemix system to begin with is DRG because it targets acute hospital care which contributes nearly half of the total health expenditure while the number of services are far fewer than other types of services. For example, Ambulatory Patient Group (APG), a casemix system for outpatient care, will have almost 10 times higher number of patient visits than the inpatient admissions. Moreover, the overall costs of out patient care are lower than the costs of inpatient care.

Minimal data requirement is another reason for beginning with DRG. The allocation of patient into DRG requires clinical data on principal diagnosis, comorbidities complications (a combination of several illnesses e.g. patients with end stage renal diseases), the operating room procedures (if any), age and discharge type [4]. It is assumed that a good medical record will have these data completed on the front summary sheet.

The following sections will describe and discuss experiences of DRG developments in Thailand.

10.2 Development and utilization of DRG in Thailand

This section outlines the historical background of DRG development in Thailand. The methods used for development and refinement of DRG groupers and the standards, and the application of DRG in the Thai health system will also be discussed.

10.2.1 Historical background

The work on DRG started in about 1993 when the Traffic Accident Protection Act 1992 was about to be effective. This Act enforces car owners to pay premiums against liabilities on medical expenses and life losses that may occur to drivers, passengers and pedestrians. The payments to providers of medical care are based on the traditional retrospective-fee-for-service reimbursement. It had been foreseen that problems related to costs would occur. Instead of waiting for problems, the first DRG research was proposed to the Health Systems Research Institute (HSRI) to test the feasibility of the casemix concept in health financing. A data collection sheet was used to abstract clinical and user charge information from the patients admitted to sampled hospitals during the research period (see details in Table 10.1).

Table 10.1 Developments of DRG in Thailand.

Year	Title	Funder	Details
1993	Accident DRG	HSRI	Collected ~10,000 inpatients from 34 public and private hospitals in 10 provinces.
1995	Low income DRG	HSRI	Collected ~16,000 inpatients from 40 public hospitals who were partially or totally exempted from user fees.
1996	Efficient payment with DRG	WHO	Electronic inpatient records from 11 provincial hospitals were used to group DRG, and samples of medical records were reviewed.
1997	Third phase of DRG	-	Electronic inpatient records from 54 provincial and district hospitals of FY1996 were used to group DRG. The Wales Grouper was supplied by the 3M.
1997-1998	DRG Guidelines and Thai DRG Grouper version 1	HIO, MoPH	A panel of clinicians scrutinized and adjusted the relative weights of DRG to be used by the Health Insurance Office. DRG Grouper is developed for use at central ministry and hospital levels.
1998	DRG of 1 million inpatients	-	Electronic inpatient records from 91 provincial and district hospitals of FY1997 were grouped into DRG.
1999	DRG Reinsurance payment	HIO, MoPH	FY 1998, 1.6 million records from 101 hospitals and in FY 1999, 2.8 million patient records from 411 hospitals were submitted for reinsurance payments.
2000	Thai DRG Grouper version 2	HIO, MoPH	The new version of grouper was released.

The test on the accident-DRG produced about 100 DRG's [5], only one-fifth of the total DRG's version 10. The next step was to expand DRG to cover all disease conditions so that it could be used for the whole inpatient care. Users of the low-income card schemes including patients under the hospital fee-exemption schemes were the targets for DRG grouping. The data collection was based on a paper collection sheet as used in the accident DRG research. Nearly 400 DRG's were mapped this time [6].

Instead of manually collecting the data, the researchers used the clinical data that were already available in the hospital computer system. In 1996, 11 provincial hospitals provided electronic files of clinical data for grouping into DRG. This was called the second phase development. The results were promising even with some of the 'manually mapped' DRG process. Regional hospitals showed the high average relative weights as compared to the lower average for general hospitals. Other indicators related to casemix measurements (number of DRG's treated in the hospital, degree of specialization and wealth of information) were also promising [7].

The third phase of DRG was to test the local developments of DRG against the international DRG Grouper, with support from 3M company. The countrywide MoPH hospitals sent their electronic data, grouped into DRG and compared with AP-DRG results delivered by the Wales Cymru Grouper. The report of this activity was presented at the 1997 International Working Conference on Patient Classification System/Europe in Florence, Italy.

After the processes of development had been checked with international experts, the researchers gained more confidence, so in 1997, a panel of clinicians was recruited to review the mapping of disease codes (by ICD) into DRG and the relative weight (RW) for every DRG. These activities culminated in a book called 'DRG Guidelines'0. At this time it was necessary that the Thai DRG Grouper version 1 had to be developed for use at the ministry and hospital levels.

The release of DRG Grouper version 1 was at the period that the Health Insurance Office (HIO), MoPH launched the reinsurance policy to allocate more money to hospitals that could prove they had provided high cost care to the low-income card scheme. More hospitals submitted their inpatient data to the MoPH to win the reinsurance payments (see chapter on targeting the poor). In fiscal year 1998, 1.6 million records were sent in and increased to 2.8 million in FY 1999.

Weaknesses of the first version DRG grouper were often mentioned when DRG was extended to pay for the referral cases at referral centers (teaching hospitals). Therefore, in 2000, the second version of Thai-DRG Grouper was released for use in 2001.

10.2.2 Methods for development

The prerequisite for DRG system is the computerized information system. Clinical data of inpatients are essential for DRG development. DRG in Thailand was first developed after the hospital information system had been computerized in the late 1980s. Although computerized information systems were widely used in the early 1990s, only a few hospitals were ready to provide good clinical data, not to mention the resource use data for the development of DRG.

Two main methods for development of DRG are classification and calibration. Classification deals with the mapping of disease codes into DRG. Calibration deals with the calculation of relative weight, and the average standards on Length of Stay (LOS) and trimmed point (the cutting point for defining a patient with an extremely long hospital stay).

10.2.3 Groupers

In the information technology era, computer software greatly facilitates the task of mapping diseases into DRG. This is called DRG grouper.

From 1993 to 1997, the mapping of DRG was by a conversion table and manual query commands in the database software. The Wales Grouper was tried in 1997giving better performance than the query commands (see Table 10.2). This triggered the need for computer software to be developed to enhance and facilitate performance.

Table 10.2 The DRG Groupers and their performance.

Grouper	Primary purpose	Performance	Year
Thai DRG conversion table	DRG for low income patients	80% of 16,000 low-income cases were grouped for first use and reduced to 60-70% of cases when used in bigger databases.	1995
Wales Grouper	The third phase of DRG in Thailand	80% of 700,000 cases were allocated to meaningful AP-DRG.	1997
Thai DRG Grouper version 1	Reinsurance payment according to DRG	The benchmark for releasing the grouper is 95% for meaningful DRG. The latest performance on the 2000 data was 90%.	1998
Thai DRG Grouper version 2	To cover teaching hospitals, for use in the SSS	Reanalysis of previous data showed better performance. Meaningful DRG for the 2000 data is 97%.	2000
Thai DRG Grouper version 3	For use under the universal coverage policy	Expected to have Thai features on infectious and tropical diseases.	2001-2002

The first Thai DRG Grouper based on the US Health Care Financing Administration (HCFA) DRG version 10 was developed. It was implemented locally because in 1998 the medical codes used in Thailand were ICD10 for diagnosis and ICD9CM for procedure, which was different from any other commercial groupers.

Maintaining a good grouper is a continuous task. In 2000, the second version of Thai DRG, based on the HCFA DRG version 16 was released. This version had better performance because all ICD codes were put into the library for mapping into DRG. The development team is presently obtaining funding from WHO Thailand country budget to develop the grouper version 3 with more Thai groups for infectious and tropical diseases.

10.2.4 Calibration

Methods for calculating the standards have gone through two phases: the research phase and the ongoing recalibration. For reliable results, the data for calibration has to be accurate and be representative of all types of hospitals.

The research phase was the start up of this long-term development. Since data was not in place at the beginning, the work sheet became a tool to collect data by the sampling technique. When more data reached the data warehouse, they were used as the material for ongoing recalibration.

Relative weight is the most important result of calibration because it is the signal for paying health providers. The research phase for calibration used data from hospital charge and converted them to cost employing the cost-to-charge ratio of each hospital. To complete the first version of DRG for national use, a panel of experts was set up to scrutinize and adjust the weight comparing the relative difference to HCFA DRG weight.

It is expected that the method used for the calibration for DRG version 3 will be refined further - a single overall hospital cost-to-charge ratio will be replaced by the departmental cost-to-charge ratios. If possible, the future calibration will be closer to the actual cost of treating a patient. This will rely on the installation of the new financial accounting system in future autonomous public hospitals [8].

10.2.5 Uses of DRG in Thailand

Since DRG was first researched because the Thai health financing system needed a lift, the immediate uses of DRG were linked to other research activities and the final uses are for payments to health providers (see Table 3).

The first immediate use of DRG was to estimate the expenditure under the universal coverage policy. DRG relative weights were used in combination with the admission rates of different age and insurance groups to arrive at a more precise estimate of hospitalizations [9]. When the Grouper version 1 was released, more research activities used DRG as a standardization tool for both efficiency and equity. If health needs should be responded equitably regardless of socio-economic status, DRG was used to compare health expenditures between Thai and Burmese patients in Tak province under the same DRG [10]. For efficiency, DRG was used in the research comparing doctor fees at different private hospitals for the same DRG [11].

The main uses of DRG focus on health care finance. The Provincial Hospital Division, which oversees 92 regional and general hospitals in Thailand, has applied the DRG weights by hospitals in the resource allocation formula for the non-labor recurrent budget since 1996. The Health Insurance Office used the rough DRG weights

by hospital levels to allocate the low-income budget to provinces in 1997.

The most explicit use of DRG is the payment under the reinsurance policy under the low-income card scheme. Since the capitation budget allocated to provinces pays little attention to high cost care and cross-boundaries, the reinsurance policy compensates hospitals that provide care to the low-income card beneficiaries with severe diseases. In 1998, about 157 million baht was allocated to 98 hospitals that submitted the inpatient data, and in 1999, almost 144 million baht was allocated to 174 hospitals. In the year 2000, DRG was declared the unit of payment for referral cases from public hospitals to teaching hospitals. It is too early to assess the efficiency impact of DRG uses. However, it is fair to say that allocative efficiency is possible using DRG rather than using the head counts or lengths of stay of inpatients.

Table 10.3 Uses of DRG in research and health financing.

Year	Activity	Office/Research	Details
1995	Estimation of expenditure for basic package	HSRI	Use the relative weights of low income DRG to estimate resource uses if the government expands health benefit coverage to majority of the population.
1996	Resource allocation for provincial hospitals and the low income scheme	Provincial Hospital Division, Health Insurance Office	Use average relative weights of regional, general and community hospitals to allocate non-labor recurrent budget to hospitals and provinces.
1997	Resource allocation for provincial hospitals and the low income scheme	Provincial Hospital Division, Health Insurance Office	Use relative weights of own hospitals and average weights of regional, general and community hospitals to allocate non-labor recurrent budget to hospitals and provinces.
1998	● Health care reform for Phayao province ● Estimating budget for treating foreigners in Tak province	● The Health Care Reform ● Tak Area-based research -HSRI	● Use relative weights of own hospitals to allocate low income budget ● Use DRG to compare resource uses between Thai and foreign inpatients
	● High price medical services ● Clinical budget holder in 3 provincial hospitals	● Thai Medical Council ● Provincial Hospital Division & HSRI	● Use DRG to stratify the prices in public and private hospitals ● Use DRG to allocate prospective budget and evaluate resource uses in action research
1998-2000	Reinsurance policy, paying for high cost care under the low income card scheme	Health Insurance Office with high relative weights	Use of individual patient data, paying according to cases

10.3 Problems of implementation of DRG

DRG began research in Thailand in 1993, but the full-scale implementation has been placed in the Health Insurance Office since 1998. During 1997, there were potential schemes (CSMBS, TAPS, etc.) to implement DRG, but only the low-income card took the lead. The main barrier of implementing DRG is the requirement of a sophisticated information system at the hospital and the central levels. The real reason may be that other ministries (the Ministry of Finance -manager of the CSMBS, the Ministry of Commerce - manager of the TAPS, the SSO - manager of the SSS) did not fully understand the merits of DRG. Problems related to the implementation of DRG are listed as follows:

10.3.1 Policy-related issues

(1) Uncertain policy in using DRG in health finance

DRG is associated with the US health finance system. Therefore, there are concerns that if DRG is adopted entirely, the Thai health system will become too expensive, too difficult to administer, too focused on curative care, and prone to frauds, etc. If compared to the success in cost control by capitation payment under the SSS, DRG would sound rather complex. Policy makers who are not well informed are uncertain about DRG.

(2) Low investment in human resource development

DRG is one innovation of health management [(1)]. The management of DRG involves the top executives of health institutions down to patient-interface health personnel. The crucial success factor for DRG is the efficient and equitable health finance policy, the good quality clinical and resource use information and high computing skills of personnel. These factors are important to human resource developments. Less success at the provincial level was the result of low investment in human resources and marginal success at the central level - the result of unbalanced human resources management.

10.3.2 Technical issues

(1) Information infrastructure

It is not possible to accomplish DRG management without information technology, from abstraction of clinical data into an electronic file, grouping into DRG and making payments according to DRG. The information infrastructure involves a network of hardware, software and trained personnel. Problems of information technology can be explained by lack of competent human resources and software rather than lack of computers. Most of the information stored in the computer system is for first time users at the time of patient service, but is seldom used for health care management.

(2) Low quality clinical data

The practice of using individual patient data only began with the implementation of DRG. It was not a normal practice for medical coders to communicate with medical doctors. This is a good explanation why the error rate of clinical information in the computer and in the medical record was as high as 45 percent [(12)].

Those who do not have a thorough knowledge of DRG do not see its benefits. Others distort data information as in DRG creep, a word commonly used to describe the distortion of providers giving an exaggeration of the disease in order to obtain higher payment. Sometimes DRG creep is called upcoding.

(3) Imperfect DRG Grouper

The domestic development of the DRG Grouper is one of the strengths in pushing a number of knowledgeable people to become interested in medical coding. However, sometimes this created criticisms and unpopularity among teaching hospitals.

(4) Inaccuracies in relative weight

Inadequate information infrastructure is the fundamental problem of incom-

plete hospital information. Very few public hospitals can provide information on hospital resource use at the individual patient level. This inherited problem created a lack of understanding in constructing the DRG relative weights. The weights were created in-proportionate losses and gains when used as payments to different levels of hospitals [13]. As discussed earlier, the installation of the new financial accounting system in representative hospitals should be to solve this problem.

10.4 Knowledge gained from DRG

10.4.1 Construction of capitation budget for inpatient care

Age and sex are two strong confounding factors in determining admission rate and severity of illness. Inpatient data from 411 hospitals in 1999 (nearly 70 percent of the total admission in the country) give the possibility that the differential capitation rates for different age/sex can be calculated to cover hospital care within a year.

Figures 10.1,10. 2 and 10.3 are the admission rates by age/sex, the average RW per admission and the suggested RW per person per year by age/sex. The suggested RW is calculated by multiplying the admission rate with the average RW. If the base rate (cost per RW) is specified, the capitation rate in monetary terms for hospital care can be established. For example, if the base rate is 10,000 baht per RW, the average RW per person per year for males aged 75-79 is 0.16 which indicates that the capitation rate for this age group is 1,600 baht a year.

Figure 10.1 Admission rate per 100,000 by age/sex in 1999.

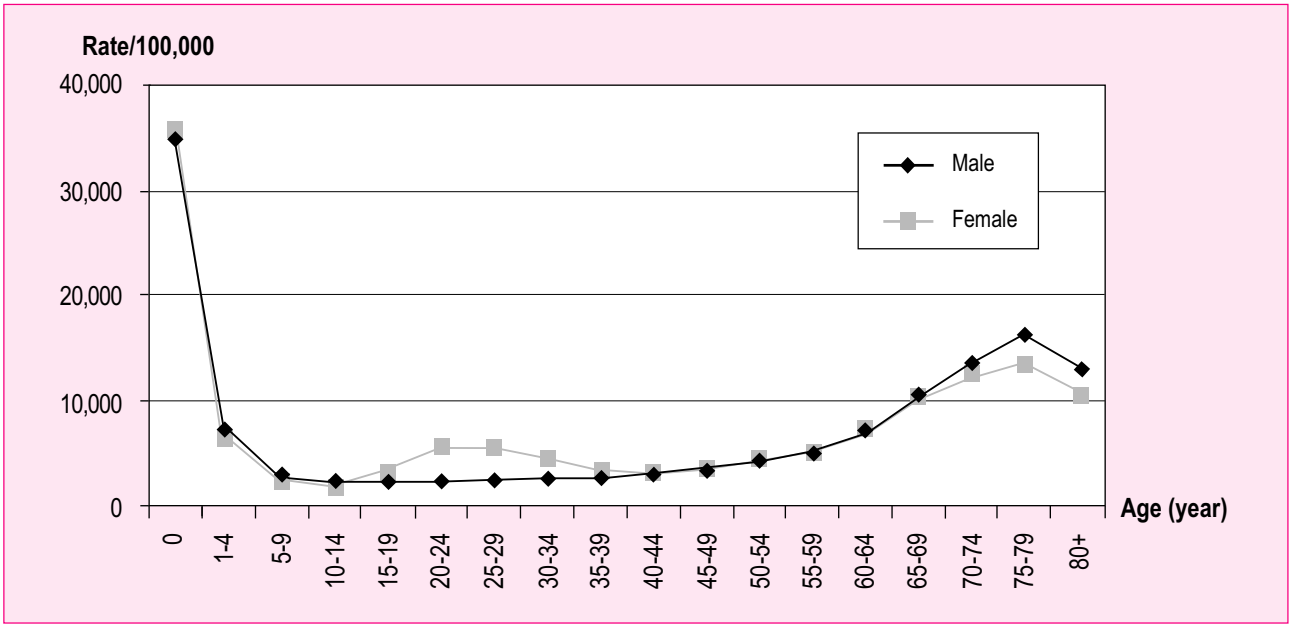


Figure 10.2 Average RW by age and sex of each admission.

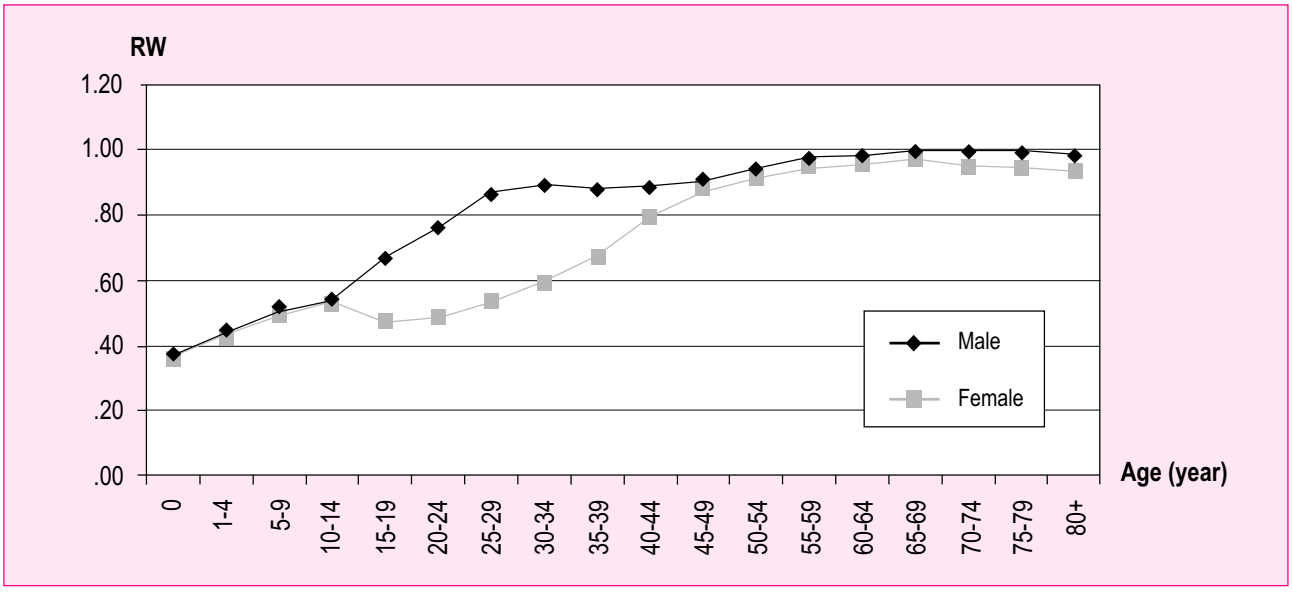
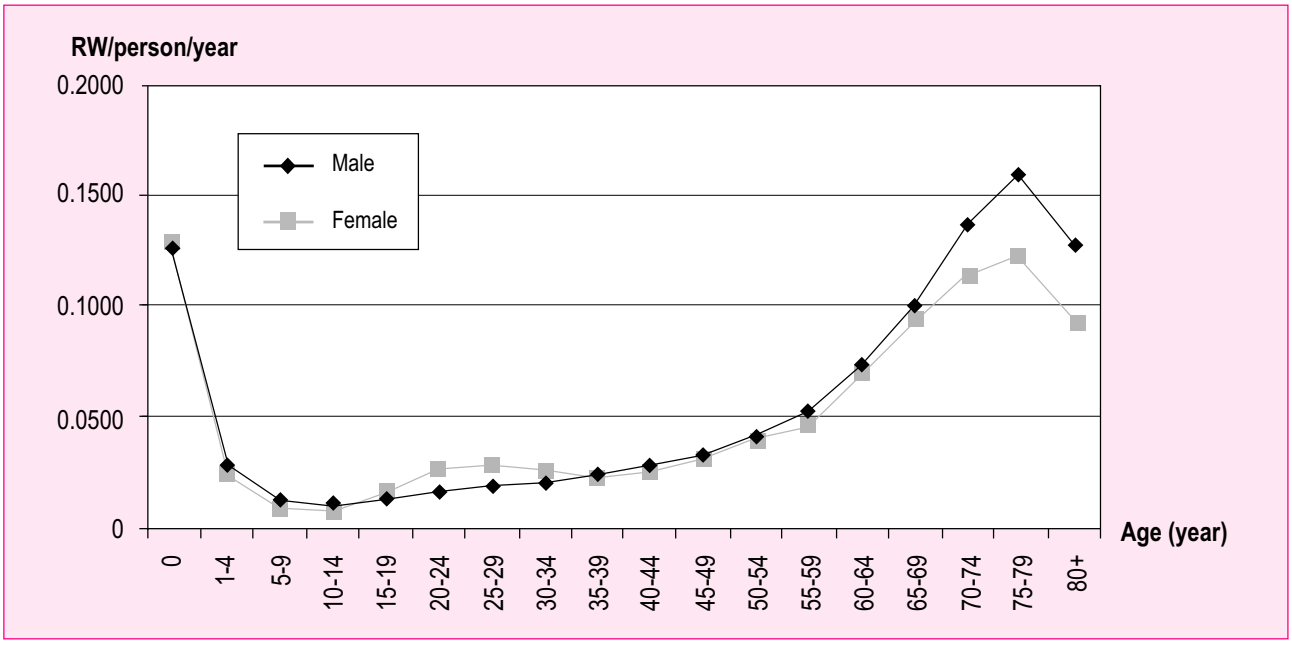


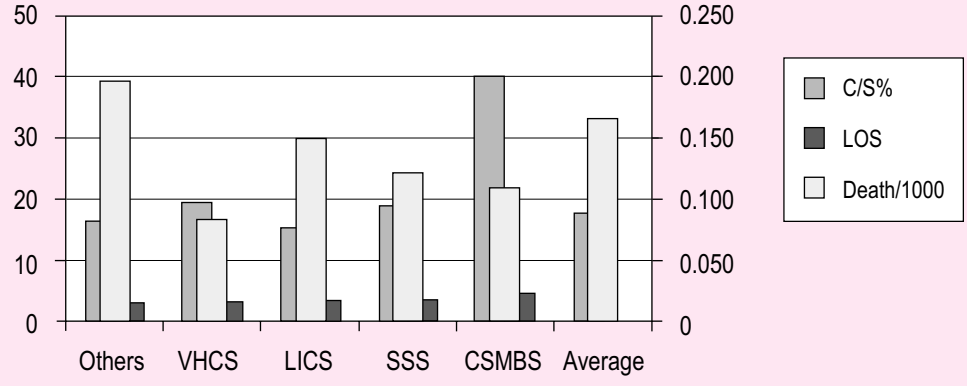
Figure 10.3 Average RW per person per year (calculated from figure 10.1 and 10.2).



10.4.2 Monitoring equity

The same national database also gives the opportunity to monitor equity in health delivery. The 2.8 million admissions in 1999 provided data on 312,124 deliveries in hospitals. Delivery was used in this example because it was the service of a short range, only child-bearing ages (from 15 to 44 years), therefore the age-specific rate of this group was assumed. The evidence showed that (see Figure 10.4) the most prestigious health insurance scheme (the Civil Servant Medical Benefit Scheme, CSMBS) led the pregnant mothers to a higher likelihood of cesarean section (40 percent of the total deliveries), while the least prestigious (the Low-Income Card Scheme, LICS) had the lowest rate (15 percent). This difference raised an ethical question of whether physicians were performing surgeries according to health needs [14].

Figure 10.4 Rate of caesarean section, maternal mortality and average length od stay (LOS) by insurance schemes.



VHCS = Voluntary Health Card Scheme
LICS = Low-Income Card Scheme
SSS = Social Security Scheme
CSMBS = Civil Servant Medical Benefit Scheme
C/S% = Caesarean Section
LOS = Lenght of Stay

The average mortality of cesarean section was higher - 0.22 per 1,000 deliveries - while the chance of dying from normal delivery was 0.14 per 1,000. The mother of CSMBS was 0.11 per 1,000 and the LICS was 0.15 per 1,000. Assuming there were no significant differences in the age of the mothers and parity and antenatal care between the groups, these findings lead to the question of whether the affluent insurance scheme is less efficient at the expense of the poorer scheme.

10.5 Lessons learned and further developments

Having discussed the development and application of DRG in Thailand, this section summarizes the strengths, warnings and the future prospect of DRG.

10.5.1 Strengths

(1) Evidence-based resource allocation

DRG offers the opportunity to allocate scarce resources based on evidence. Relative weight and case volume are crucial elements for comparing caseloads of different health institutions. The teaching hospitals have higher average relative weights than the provincial hospitals and the community hospitals respectively. Furthermore, age-specific relative weights can be used for allocation of inpatient capitation budget.

(2) Medical record audit

Medical records have been overlooked for decades. DRG forces the use of medical records with particular reference to DRG creep or upcoding. The medical record audit revealed a high error rate and there is definitely a need to improve the quality of the medical record[15].

(3) Data warehouse

The reinsurance policy on a DRG basis of the HIO has ensured the flow of inpatient data from all hospitals to the central ministry. About three million admissions were all compiled and used for policy analysis. This data warehouse will be the biggest asset in health delivery analysis and health system planning.

(4) Medical coding

DRG is the derivative using the patient's diagnoses and procedures as the primary data elements. Before the implementation of DRG, there were concerns that physicians would not fill in the discharge summaries in time and medical coders were incapable of assigning the correct codes. After the implementation, physicians are positively involved in the medical coding audit and many wanted the Thai modification of coding.

(5) Casemix system

When DRG is in use, many public hospitals are against inappropriate DRG payment because they were not providing acute hospital care. This calls for other casemix systems which are better measurements for sub-acute and non-acute care; eg. psychiatric care, convalescent care.

10.5.2 Cautions

- **Individual transactions**

The poor reputation of DRG came from the US where DRG was used for paying hospitals on individual transactions. This not only increased administrative cost but also increased the total cost because of rising readmission. Alternatively, DRG is preferable when used for allocation of resources within the global budget.

10.5.3 Further developments

The followings are suggestions for further developments to increase effectiveness of DRG uses:

(1) Health financing under the universal coverage policy

Since DRG is a good measure of inpatient output, it should be considered as a tool for payment of hospital care under the universal coverage policy. That is, all of the insurance schemes will use DRG within the global budget as a basis for payment. The Civil Servant Medical Benefit Scheme will start the reform by laying down foundations of the information systems, especially on the reimbursement of inpatient care. DRG will be the casemix used for the start up activities to reach the ultimate goal where health financing of the scheme will turn into a contractual model under the adjusted capitation payment. Meanwhile, the social security scheme is considering the change of flat capitation payment to the adjusted rate based on DRG casemix and other parameters of health needs. The universal coverage policy is studying the allocation formula of health budget to the provincial health board. DRG would be one of the recommended casemix systems used in the allocation formula for inpatient budget.

(2) Coding center

To strengthen the uses of medical codes, a national coding center must be set up in the MoPH. Since new diseases and new procedures emerge at anytime between the updating process of the World Health Organization, there should be domestic mechanisms to update the codes, and the solution is the coding center.

(3) Casemix center

Experiences of DRG development have been promising despite problems of

human resources and information infrastructure as mentioned. Expectations on other casemix systems from health policy analysts and health care providers have grown. The casemix center under the Health Insurance Office, MoPH should be the place for systematically updating the DRG standards and developing new casemix systems that are relevant to the Thai health financing policies.

10.6 Summary

This chapter describes the developments of DRG in Thailand. The long research activities before implementation were still inadequate especially when dealing with the information technology. Implementation under the Thai bureaucracy needed mobilized resources from existing organizations without a clearly defined program. After three years of implementation, it has been proved that data flows to the central level were possible, and the knowledge gained for further uses have been promising. The medical information societies in Thailand are becoming interested in medical coding and are finding ways to establish the local coding for internal use as well as the possibility of comparing it with international standards.

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CHAPTER 11

Quality Assurance Systems for Health Care in Thailand

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11.1 Regulatory frameworks for assuring quality of the health care system

Access to quality health care is the right of the Thai people. The 52nd article of Thailand's constitution (1997) states that the Thai people are equitably entitled to high standards of health care and it is the duty of the state to ensure this. Attempts to ensure quality in the health care system can be seen in the public health section of the Eighth National Economic and Social Development Plan (1997-2001) in addition to laws and regulations of the country. The national plan includes the objective to ensure that the people are entitled to health insurance and have access to good quality, efficient and equitable holistic health services. It also aims to protect consumers from standard and health-related products. Two major areas of the strategy are directed to establish standards and quality systems for health care providers and to strengthen consumer protection mechanisms. Several measures, such as new legislation and legal amendments, are included [(1)].

Overall, there are several laws and regulations related to quality assurance in the health care system. The major components may be briefly presented as follows:

11.1.1 Regulations of professional services

Laws and regulations oversee the qualifications and conduct of health care professionals. Physicians are under the Medical Professions Act (1982). Dentists are under The Dental Professions Act (1994), while pharmacists are under the Pharmaceutical Professions Act (1994). Nurses and midwives are under the Nursing and Midwifery Professions Act, Amendment No. 2 (1997). Other health professionals are under the Medical Registration Act (1999). Professional bodies are authorized to issue regulations on professional conduct and ethics.

11.1.2 Regulations in health care facilities

Public and private health facilities are subject to different regulations. In general, the quality of public hospitals and health centers are under the regulation and control of the Ministry of Public Health (MoPH). Since 1986, the MoPH has set up standards for developing service systems of health care facilities and public health units in the peripheral areas. They cover several areas of services, including clinical, nursing dental pharmaceutical, community medicine, investigation, facility development and construction in the peripheral areas. Updated in 1990 and 1997 the

standards are basically applied to communities, general and regional hospitals, as well as health centers of the Ministry of Public Health. The regulations stipulate that there be adequately equipped facilities in respect to their levels in the patient-referral chain [2-8].

Private hospitals and health care facilities are under the Medical Premises Act of 1998. In summary, the legislation classifies groups of health care facilities, specifies licensing procedures and legal accountability, and enables regulations of the operations [9]. So far 15 ministerial regulations have been issued.

11.1.3 Regulations on laboratory facilities:

Quality requirements in laboratory facilities set by the Department of Medical Sciences of the MoPH include standards in organization and management; quality system, monitoring and review, personnel, facility and environment, equipment and control materials, calibration, testing methods, test specimen management; recording; reporting; delivery of specimen to outside facilities, purchasing and outsider contracts, grievance process, and the general safety system [10-12].

11.1.4 Regulations related to food, drugs and medical supplies

Several legislatures and regulations on health-related products have been issued and amended to assure quality and protect consumers in the system. Some examples include the Food Act, the Drug Act and the Medical Equipment Act. Recently, the ministerial regulation on good manufacturing practice (GMP) was completed. As of 1998, there were 130 out of 176 factories producing modern medicine with GMP, or 73.8 percent of the target. The number increased from 58 out of 191 factories, or 30.4 percent in 1989 [13].

11.2 Evolution and progress of quality assurance process

11.2.1 Licensing of professionals and institutions

As designated by law, the medical professions required licensing. To be licensed, physicians, for example, have to graduate from a medical institution that is accredited by the Medical Council of Thailand. Foreign medical graduates need to pass the medical board examination organized by the council. Medical specialists need certification from colleges in their related fields that must be authorized by the Medical Council. At present, medical licenses issued to qualified medical graduates from accredited institutions or those passing the medical board examination have no expiration. The Medical Council of Thailand is considering new requirements for physicians regarding periodic licensing and re-licensing by meeting continuing-medical-education (CME) standards, or re-examination.

Dentists, pharmacists, nurses and midwives also need professional licenses under the regulations of the Dental, Pharmacist Nursing Councils, respectively. According to the laws, these professional councils have the authority to issue regulations on professional conducts and ethics, to prosecute cases related to professional conducts, as well as to issue and revoke professional licenses. Licensing procedures required by the Medical Registration Act (1999) cover healthcare professionals including traditional Thai medicine practitioners, applied Thai medicine practitioners, physical therapists and medical technicians. These professionals are under the super vision of the Medical Registration Committee and related professional committees [14].

As of the year 2000, medical and other health professional schools in the country are in the process of implementing quality assurance in education. It is an initiative of the Ministry of University Affairs for assuring the quality of college education. This is expected to develop into an accreditation program in the near future. In addition, by 2003, the Medical Council will require all medical residency training programs and institutes to be accredited by corresponding colleges of medical specialties and the Hospital Accreditation-Thailand.

Regarding institutional licensing, medical facilities under the Medical Premises Act-e.g. private clinics, polyclinics and private hospitals-require licenses from the MoPH in addition to business registration (if needed) [14]. Free-standing pharmacies and laboratories also need registration and licenses at local authorities.

11.2.2 Grievance processes and consumer protection

Quality assurance in the Thailand's health care system also includes grievance processes in which health care consumers can file complaints to governmental and non-government agencies, besides the justice system. They can report any experience of professional malpractice or unethical medical mishaps to the Medical Council, or other relevant health professional bodies. Consumers can send their grievances regarding public hospitals to the Ministry of Public Health (MoPH). They can also send complaints against private clinics and hospitals to the Medical Registration Division of the Office of the Permanent Secretary of the MoPH. These agencies have the legal authority to investigate and initiate appropriate corrective action, as well as to punish health care providers if found guilty.

In addition, there are some proactive processes to strengthen consumer protection in health care. For example, MoPH initiates the private hospital standards project, in which private hospitals are inspected. The result showed that some 17 percent of 99 private hospitals with fewer than 100 beds and one of 45 hospitals with 100 beds or more inspected needed quality improvement. Some were closed down or converted into clinics [13]. Another example is the consumers hotline project, operated by the Office of the Food and Drug Administration (Ministry of Public Health) which aims to provide 24-hour opportunities for consumers to seek knowledge and place complaints on health products over the telephone. Campaigns have been launched to raise awareness of consumers to protect their rights and to read product labels before buying.

Moreover, a number of non-governmental bodies have been selected to be responsible for consumer protection, namely the Coordinating Committee of Non-Governmental Organizations for primary health care, the Consumers Foundation, and the Consumers Support Project of the National Women's Council under the Patronage of Her Majesty the Queen.

11.2.3 ISO certification vs. hospital accreditation system in Thailand

Thailand has begun its journey to quality in the health care system for many years now. However, early attempts focused more attention to the structural aspects of hospitals and professional expertise of physicians. The total quality management (TQM) concept was systematically introduced into public hospitals in 1993. The Social Security Office established a set of standards for its contractor hospitals in the social security scheme in 1995. The first seminar on hospital accreditation was conducted in that same year [15].

ISO certification

One of the popular quality systems being implemented in many hospitals and some other health care providers is the ISO-9000 quality assurance model. The ISO-9000 certification is the external quality evaluation program using generic international standards for manufacturing and service industries. The ISO-9000 standards focus on the maintenance of a quality management system for each service so that each service will meet defined conformance expectations. They emphasize capability rather than results and do not address the specifications in order to focus more on service standards [16].

A number of private hospitals have been given ISO-9002 certification. The scopes of certified services vary from one hospital to another. Several public hospitals under the MoPH, including community hospitals and provincial hospitals, are also implementing the ISO-9002 quality system. Many of them have already been certified for the whole or partial hospital service operations. However, clinical care and physician services are usually not included in the certification.

Hospital accreditation

Hospital accreditation is a program in which trained external peer reviewers evaluate a health care organization's compliance with pre-established organizational performance standards, believed to be optimal rather than minimal. It is usually on a voluntary basis [16].

The Hospital Accreditation program (HA) began in Thailand as a research and development program in 1997, funded by the Thailand Research Fund and the Health Systems Research Institute. Directed by Dr. Anuwat Supachutikul, the program has formed an alliance for quality improvement and accreditation, consisting of health care professionals as well as administrators and other stakeholders. Some 35 public and private hospitals have joined this pilot group.

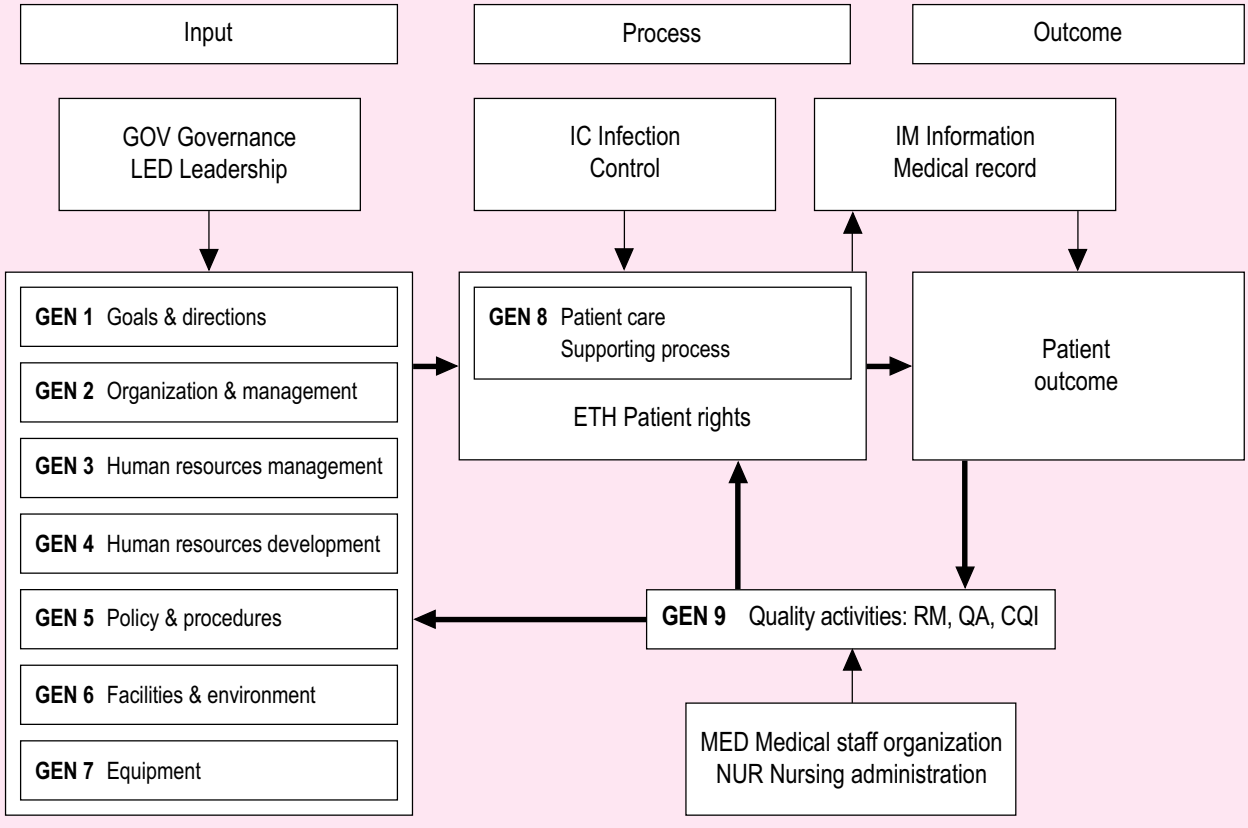
HA in Thailand emphasizes the principles of self-assessment, quality assurance and customer-focused continuous improvement. The accreditation is meant to encourage hospitals to improve and confirm their high standards. The HA hospital standards comprise 31 chapters, including standards on governance, leadership, organizational ethics and patient rights, infection control, hospital environment and safety, etc. There are nine general-standard chapters (GEN's) which state requirements on inputs, processes and outputs of hospital units and departments (Figure 10.1).

Recently, the "Hospital Accreditation-Thailand" institute has been established as an independent institution. As of October 2000, seven hospitals have been accredited. More than 200 hospitals nationwide participate and are in the process of implementing the HA quality model.

Quality assurance and certification of laboratories

Standards for quality assurance systems have been developed and raised for each branch of 77 laboratories under the Department of Medical Sciences. MoPH certifications have been granted to some non-MoPH laboratories in two other categories, namely the medical laboratories for examining laborers to work abroad and health product laboratories [13].

Figure 11.1 The conceptual framework of the hospital accreditation's general standards.



Source: Hospital Accreditation-Thailand.

11.2.4 Quality requirements and initiatives set by health insurance agencies

Health insurance agencies in Thailand have paid adequate attention to quality assurance. It was not until recently that they explored the issue and searched for ways to assess and assure quality for their program beneficiaries or members. So far, the social security scheme may be the most advanced public insurance scheme in terms of quality assurance [17].

The Social Security Office contracts and purchases care from public and private hospitals. The Office sets standards for eligible contractor hospitals. Teams of physicians and other health professionals examine and approve hospitals before allowing them to join the network. The office recognizes the risk of capitation payment (a fee of so much per head) used in the scheme and consequently there is also a grievance process and a medical audit program to monitor quality. Certain substandard providers have been expelled. In addition, the office has a plan to develop quality indicator sets and improve the hospital standards, as well as the audit program. Contractor hospitals will need to be certified by ISO or be accredited by HA in the near future. Subcontractors of the social security contractors will be subject to similar quality assurance measures.

The health welfare scheme for the indigent and health insurance card programs which belong to the Ministry of Public Health (MoPH) do not have their own quality assurance besides medical record auditing to ensure the quality of claim data. They rely primarily on mechanisms of other agencies of the MoPH to assure quality of care. The Civil Servant Medical Benefit Scheme (CSMBS) does not have any

particular systematic quality assurance either. Quality assurance will be established as part of its reform initiative.

At present, many private health insurance firms put emphasis on quality assurance. They have become more aware of customer satisfaction and demand hospitals to respond promptly to their customer demands. Several insurance firms perform medical record auditing. This may be used for the purpose of utilizing review. Quality assurance may be secondary because of the high costs.

11.2.5 Other quality initiatives and mechanisms in the Ministry of Public Health (MoPH)

With respect to public health functions under the MoPH, the ministry assures their quality and maintains conformance of its operational units through extensive auditing systems at all levels and departments. At the national level, the MoPH uses its Inspector General Office to oversee and follow up the progress of the deployment of high priority national health policies. Adhered to the guidelines set by the Eighth National Economic and Social Development Plan in Health, a set of indicators and reporting systems have been developed to keep track of the development and provide feedback to policy makers.

Besides, there are other quality-assurance and quality-improvement activities employed by several departments under the MoPH to health services, particularly in hospitals. For instance, the Mother-and-Child Bonding Hospital project was set up to strengthen the quality of maternal and child health programs in public hospitals. The Health-Promoting Hospital project is another example of health care quality initiatives in public hospitals to ensure comprehensiveness of care provided by the participating hospitals, especially in promoting health (i.e. not just limited to curing illnesses).

11.3 Success and limitation of quality assurance process

Quality assurance processes in Thailand have shown signs of development. Competition in the health service sector caused by expansion of private hospitals and higher consumer expectations for quality health care have triggered quality improvement among providers. Most of the quality improvement programs at the hospitals have been accepted favorably by the patients and communities. A recent study to evaluate the hospital accreditation project found that implementation of related activities strengthened commitment for quality among hospital administrators and staff, reduced conflicts, created patient care teams, and cut down adverse outcomes [18]. However, there was still a gap in levels of patient satisfaction between public and private hospitals. The difference was also related to the insurance status of the patients-e.g., social security patients vs. patients paying out-of-pocket [19]. Needs for better quality of care and more effective quality management are obviously concerns of many parties in health-insurance related areas [20].

Limitations in implementing quality assurance mechanisms involve consumers as well as providers. Concerns over quality of care and ability to assess quality of health care consumers seem to be the major factors that determine how quality assurance programs are executed - either by health insurers or by health care providers. Technical know-how of health care providers on quality management also plays an important role in establishing quality programs. Moreover, commitment of hospital

administrators and involvement of medical and hospital staff have been found to be very important determinants of accomplishment in setting up institution-based quality systems. However, it has not yet been demonstrated objectively how quality assurance programs currently implemented by organizations can systematically improve clinical outcomes or rationalize medical care [19].

Within the MoPH, the auditing systems have demonstrated success in assuring quality of its operations at certain levels. Nevertheless, with the complexities of the operations, lack of an effective information system, inconsistency of political interests both at the national and local levels, as well as limited time and resources, some established mechanisms, such as the indicator system, may not function effectively [21]. A number of new initiatives are planned and will be incorporated in the Ninth National Economic and Social Development Plan that will be in effect in the fiscal year 2002.

11.4. Future challenges

The future for quality assurance in the health care system of Thailand is based on commitment to quality. The system must be client-oriented. The Ministry of Public Health and other health insurers need to make sure that their beneficiaries receive optimal and appropriate care treatments while containing costs. Given limited resources, they should advocate care providers to upgrade their quality. This is not an easy task particularly with the cost constraints. Quality care by healthcare providers should be encouraged and rewarded so that it can be sustained.

Efficiently monitoring the quality of care is another challenging area. It is of utmost importance that health care consumers be empowered to take good care of their health, have the knowledge to choose providers and the know-how to select healthy products. At the same time, it is equally important that quality initiatives in the health care system stimulate providers to learn and continuously improve themselves. It is crucial that health care organizations of all levels-public or private-have reliable quality systems allowing them to assess their own performances and to make the appropriate improvements. Concerns for patient rights may become one of the essential steps to assure genuine health care quality.

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CHAPTER 12

Pharmaceutical Administrative Reform

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12.1 Drug expenditures - a target for cost control

The costs of drugs constitute about 30% of the total health expenditures in Thailand [1]. The proportion is considerably high compared to most other countries, the developed countries in particular. Drug expenditures, therefore, have been a target for cost control, especially in the public sector. A number of public policies have been developed in the efforts to contain drug costs. Policy mechanisms focus mainly on drug procurement in the public sector health facilities. The economic boom and bust, and the introduction of a number of health insurance schemes witnessed during the past decade have led to changes in the way health services are delivered and financed, as well as the way drugs are consumed. As the Thai health sector is evolving rapidly in recent years, the role of drug management has become more and more salient. Drugs will continue, and increasingly more so, to be a target of control to serve policy objectives.

Five strategic areas can be identified as policy domains in pharmaceutical administrative reform. Management tools can be introduced to enhance system effectiveness and efficiency. These tools can be categorized into two types: main tools and supplementary tools. Main tools are those applied to regulate broad system behavior. Some of the drug management tools targeting providers and suppliers of drugs are drug list, mechanisms to contain costs, drug utilization review, and management information system. Supplementary tools are those either needed for the development and the working of the main tools or those used to help improve efficiency of the drug system. For example, pharmacoeconomic (PE) evaluation can be used to aid the selection of drugs into drug lists. Table 12.1 lists widely used management tools in both categories.

In the subsections below, three major existing public policy tools which have been devised to control drug costs will be reviewed, and four key future tools needed to support pharmaceutical administrative reform will be explored. This section focuses primarily on the main tools, and only briefly addresses the supplementary tools.

Table 12.1 Strategic areas and pharmaceutical management tools.

Strategic areas in drug system	Main tools	Supplementary tools
Selection	● Drug list	● Pharmacoeconomic evaluations
Procurement	● Centralized purchasing	● Drug quality criteria
	● Medium price (maximum allowable price)	● Purchasing negotiation
Prescribing and dispensing	● Pharmacy accreditation	● Pharmaceutical care/ Good Pharmacy
	● Drug utilization review	Practice guidelines
Reimbursement	● Reference price for reimbursement	● Pricing information
		● Pharmacoeconomic evaluations
Monitoring and evaluation	● Management information	● Drug utilization database

12.2 Existing pharmaceutical management tools

All of the main pharmaceutical management tools currently in use are results of the National Drug Policy, which was instituted in 1982.

12.2.1 National List of Essential Drugs (NLED)

Thailand followed the 31st World Health Organization Assembly recommendations on drug system management, which urged the member countries to develop their own national drug policy. For the last two decades, Thailand's National Drug Policy (NDP) articulated a framework to enable sustained improvement in the Thai drug system. Economic depression and interference from politicians on drug procurement led the MoPH to improve its pharmaceutical administrative system. Initiatives to improve efficiency in the drug system have focused on the drug list and procurement procedures.

The first and the most important component of the NDP has been the National List of Essential Drugs (NLED) implemented since 1982. It was developed for government hospitals in the selection of essential drugs to be used for medical services in order to save costs and promote rational drug use. The implementation of the list is limited only to the public sector, however. The current requirements regarding the use of NLED are outlined in the Office of Prime Minister's Rules on Government Procurement which mandates public health facilities to use no less than 60 percent of their drug budget (80 percent for facilities under the Ministry of Public Health) to buy drugs listed in the NLED, and that prices of the drugs purchased must not exceed the medium price.

The NLED is a measure to limit the hospitals use of relatively expensive drugs without a good reason. However, hospitals having higher number of specialists, providing more complicated care, and/or responsible for teaching medical students, usually complain and request to list more drugs than those that appear in the list. Consequently, many hospitals request to use their budget for drugs that are not in NLED. The 1st NLED consisted of approximately 400 drug items by generic name. Subsequent revisions to the list have made changes to the types and the number of drugs included in the list. The latest NLED was published and implemented in 1999 [2]. It contains two main categories including a drug list for hospitals and a drug list for primary health care. The classification of drugs for hospitals into five sub-lists (a, b, c, d, and e) is a feature which did not exist in previous lists. Hospital at every level can use drugs in list (a). Drugs in sub-list (b) are limited to some conditions.

They can be purchased when a physician feels that they are better than drugs in sub-list (a) or when the hospital cannot procure drugs in sub-list (a). Drugs in sub-list (c) are drugs that are expensive and may result in serious adverse effects when they are inappropriately used. They are to be used only with prior authorization. Hospitals were required to conduct drug utilization evaluation (DUE) for drugs in sub-list (d). Drugs in sub-list (e) are allowed only in some special health care programs and their use requires prior authorization by the NEDL subcommittee.

Since its inception, the NLED was used as a tool to guide drug procurement in the public sector. In 1998, it was first employed as a payment tool when the cabinet decided to curb drug costs along with other expenses in an attempt to contain overall expenditures of the Civil Service Medical Benefit Scheme (CSMBS).

Because a large number of drugs are added to the 1999 NLED, the list no longer maintains its original objectives to include only a limited number of "essential" drugs to serve public health purposes. The foundation of a restricted number of essential drugs in a drug list is a cost-containment-based formulary decision, in contrast to a cost-outcome-based formulary decision favoring a wider range of drugs. To demonstrate that adding or rejecting a new and relatively expensive drug is clinically and economically sound, some kinds of objective assessment—PE evaluations, for example—should be required for formulary submission. Table 12.2 lists examples of drug agents in some therapeutic drug classes by different levels of cost. The high cost agents may escalate drug costs without improving drug efficiency if no stringent criteria are required for formulary additions. PE-based formulary decision should be an additional tool to enhance efficiency in the drug system [3]. PE-analyzes can be implemented at the national level and at individual institutions. PE analyzes can also be used for the revision of NLED especially drugs in sub-list (c) and (d). Such analysis may reduce the number of drugs by eliminating those considered not cost-effective when compared to others in the same category.

Table 12.2 Selected drug agents in different therapeutic drug classes by different cost levels.

Therapeutic drug Class	Lowest cost agents	Mid-cost agents	High cost agents
Calcium channel blockers	Adalat CC Dilarcor XR Verapamil SR	Norvasc	Procardia XL Cardizem CD
ACE inhibitors	Captopril (generic) Lisinopril (Zestril/Prinivil)	Other branded	Vasotec
HMG CoA reductase inhibitors	Lescol Lipitor	Pravachol Zocor	Mevacor
H2 Anatagonist/ proton pump inhibitors	Cimetidine (generic) Ranitidine (generic)	Prevacid	Axid, Pepcid, Zantac. Prilosec
NSAIDS	Naproxen (generic) Ibuprofen (generic)	Other multi-source	Cox II inhibitors Cerebrex, Vioxx
Antidepressants	Tricyclics (generic) Paxil	Zoloft	Prozac
Antibiotics	Erythomycin, TMP/SMZ, Amoxicillin, Doxycycline (all generics)	Zithromax	Biaxin Augmentin Ceftin

12.2.2 Medium price

The existence of brand and generic drugs and the widely practiced differential pricing have led to an extremely wide range of drug prices in Thailand. For example, the prices of 1,000 cimetidine 500 mg. tablet that hospitals purchased range from 220 to 6,600 baht [4]. To ensure that hospitals buy drugs at rational prices, the MoPH set up the maximum allowable drug prices or medium prices. Medium prices are mainly calculated from the hospital purchase price. They rarely come from production costs of individual firms [5]. Controversies exist as to which method is appropriate for establishing medium drug price.

Hospitals have used medium price as reference for their procurement since 1986. The government stopped using medium drug price for a short period in 1998 citing that the economic crisis caused prices of imported finished products and raw materials to rise, and that standard prices are no longer justified. Surprisingly, prices of many drugs purchased by government hospitals have decreased under the economics depression between 1998-2000. In general, the prices they purchased are substantially lower than medium prices as shown in Table 12.3 [6].

Additional approaches to control drug price which have been implemented include MoPH making available actual purchase prices or reference purchasing price to all public hospitals. Individual hospitals can search the reference prices via the MoPH website. To some extent, the reference purchasing prices will signal public hospitals to be aware of the price range of drugs they plan to purchase.

Table 12.3 Lowest and highest price of drug purchased by provincial group buyers during 1998-2000 compared with medium price.

Drug Name	Medium Price	Lowest price purchased			Highest price purchased		
		1998	1999	2000	1998	1999	2000
Injection							
D-5-N 1,000 ml.	25.5	25	20	15.9	32.5	29	26
Cefotaxime 1 gm. Inj.	170	52	37.7	37.2	100	97	107
Metronidazole 0.5% inj. 100 ml.	105	37	26.3	21	60	50	40.7
Suspension							
Antacid + Simethicone 450 ml.	19.25	13.8	10.7	9	23	21	17
Tablets							
Enalapril 5 mg. Tab. 100's	505	100	177	45	330	185	110
Gemfibrozil 300 mg. Cap. 100's	740	150	119	119	250	235	170
Ibuprofen 200 mg. Tab. 1,000's	750	220	150	180	355	400	290
Ibuprofen 400 mg. Tab. 500's	800	184	167	165	400	319	380
Indomethacin 25 mg Cap. 1,000's	300	188	180	155	280	253	219
Nifedipine 10 mg. Cap. 100's	300	165	161	150	440	320	214

Source: Ministry of Public Health, Provincial Hospital Division. Newsletter, Progress Report on Measure to Improve Efficiency on Drug Management System; 6 (April, 2000).

12.2.3 Collective Procurement Systems

Several studies have reported that "provincial group procurement" is a important mechanism to control drug expenditures [7]. Comprehensive process includes group bargaining, open-ended contract, central procurement, and product quality assurance. Group purchasing is a key mechanism to improve efficiency in the drug system. It is thus employed by the government, insurer or provider-depending on the system's incentives— as an essential pharmaceutical administrative tool.

To ensure that the drugs to be purchased are of good quality, group buyers must work together to develop quality assurance plan [8]. Reports from various provincial group buyers indicated that the quality of some pharmaceutical products did not comply with legal standards. The results correspond with the annual report from the Department of Medical Sciences . Active surveillance by government agencies in conjunction with strictly FDA enforcement may decrease the number of sub-standard products. MoPH should assist the drug purchaser by providing a reference guide on drug quality similar to the Orange Book in the US. If quality can be assured, purchasers can then focus on competition-oriented pricing.

12.3 Development of pharmaceutical management tools in the context of health sector reform

Successful health sector reform relies on, system management tools that help to enable the effective implementation of reform imperatives, among other things. Existing administrative structures and processes have to be retooled to fit the new model. Additional tools necessary for meeting the new demands called for by the reform will have to be developed.

As the current health sector reform movement is proceeding in the direction of instituting universal coverage under one or more insurance plan(s), the issues related to pharmaceuticals will inevitably involve benefits coverage and payment. The type of tools needed for assisting pharmaceutical management under the new system after reform would not differ significantly from the existing ones. But the health system players who will employ these tools may be quite different. As these management tools are used with the purpose to contain costs and to assure quality, which tools are to be used by which players will be determined by the change in the system's incentive structures. For example, under the current system where the government is also a provider of health services, there is an incentive to control costs of drugs. Hence, government policies have included drug list and group procurement. If the government role is shifted under the new system from the current multiple roles to only financing of services, then the type of tools required would depend on the type of payment methods employed. Under a system of per item payment for drugs, drug list and price list will be needed, while drug procurement tools will no longer be necessary under the new role. Questions will be raised regarding, for instance, which types or items of drugs are to be covered by the insurance, at what price, and probably to what providers. Group purchase of drugs will remain a valid tool if providers under the new system choose to use it for collective control of drug costs. On the other hand, if a per case, per visit, per person, or global payment method is employed, a maximal drug list may not be relevant to the payer. In contrast, providers paid on these methods will likely devise their own lists for the same purpose-to control costs. Tools used for quality assurance of drugs and health services should be of interest by

the respective purchasers. Thus, different types of pharmaceutical management tools will be employed by different players depending on the new system arrangements. Those tools currently in use may have to be revised or refined, and new tools may have to be developed to serve new needs to manage the system effectively and efficiently.

In the following, four major pharmaceutical policy tools are proposed as indispensable in supporting health sector reform. They are 1) drug lists for insurance reimbursement, 2) reference drug price, 3) system for pharmacy accreditation, and 4) pharmaceutical management information system. These tools are proposed on the basis of, but not limited to, the key components included in the Civil Service Medical Benefits Scheme (CSMBS) reform policy. Since these features are likely to serve as the conceptual basis for designing the new system in national health sector reform.

12.3.1 Drug lists

No matter which provider payment method will be employed, the types and prices of drugs will remain issues of concern in terms of insurance costing. With a per-item payment method, the need for drug lists and rates to determine reimbursement is apparent and significant. If capitation payment is used, the types and the prices of drugs will be one of the input factors for calculating capitation rates.

In contrast to the existing National List of Essential Drugs, the drug lists proposed here are for the purpose of insurance payment, rather than for drug procurement. As such, the new drug lists do not necessarily function as a maximal list for the NLED, as the list was originally intended for. Instead, drug lists can be designed to serve as either inclusion (positive) or exclusion (negative), or partial list, or a combination of them.

Unlimited reimbursement of all drugs prescribed to the insured will unavoidably lead to the rise in drug costs. Efficient management of an insurance system employing per-item reimbursement method would clearly call for the development of drug lists, as well as other measures. Drug list functions as a control over the items of drug whose payment is permitted. Although it constitutes only partial control over costs, if designed properly and employed with other tools (described later), it will serve to deter the increase in expenditures. What are to be contained in a drug list would be determined on preset criteria. Which criteria are to be used depends on the value judgement of the insurer or the purchaser of care. In practice the insurer might rely on expert panels in the selection of drugs.

Health insurance policies in many countries utilize drug list as a key control mechanism for their systems. For example, the National Health Service in the UK, the Medicare in Australia, the sickness funds in Germany, and health maintenance organizations in the US, all utilize some kind of drug lists indicating which are reimbursable under the insurance and/or which are not. The Australian even has a separate Pharmaceutical Benefits Scheme (PBS) in parallel with the Medical Benefits Scheme [9]. The PBS lists about 500 kinds of drugs that are covered under the benefit scheme [10].

The number of drug lists too is to be decided on the basis of specified objectives. Conceptually, there can be as many lists as needed to serve the insurer purposes. Three lists are outlined below along with non-exhaustive options regarding how the lists are to be used, e.g. reimbursement rates and the rationale:

- Fully reimbursable list: This list contains pharmaceutical items which the insurer agrees to reimburse fully. Drugs listed in this category would be those determined as essential and well established in terms of cost-effectiveness.
- Partially reimbursable list: The second list may contain drugs considered second or third lined, or less cost-effective than the first. Copayment is introduced to this category of drugs. Costs of drugs on this list, then, are partially reimbursed. A percentage of prices can be specified as the rate of reimbursement by the insurer, the difference is to be paid out-of-pocket by the patient, or by other supplementary insurance schemes which the patient may have.
- Exclusion list or negative list: Drugs in this category are either considered unproven, low in cost-effectiveness, or unnecessary. They are thus excluded from the payment responsibility of the insurer.

When one or both of the first two lists are used, the third list may not be necessary. Nevertheless, a negative list can also be developed and used along with the positive lists. In this case, the negative list can contain categories of drug seen as unnecessary and will not be considered for listing in any positive lists.

Drug list development and revision is a repetitive process. A formal system should be instituted to carry out this task. Selection of drugs to be included in each of the drug lists can be implemented by an expert committee. The process for making selection decisions should be transparent, and rely on a set of criteria that are rational. Pharmacoeconomic tools can be employed to aid the decision for enlisting cost-effective medicines for reimbursement. In some countries, Australia and Canada, for example, pharmaceutical manufacturers are required to include a PE analysis in each new submission for inclusion on the reimbursement list [11-12].

12.3.2 Reference drug price

Limiting solely the items of drugs to be reimbursed will certainly be an inadequate measure for cost control. Unlimited per-item payment leads to similar consequence as unlimited reimbursable items in terms of costs. Particularly in a market where drug patent and concerns over drug quality prevent full competition among suppliers of pharmaceuticals.

While the existing medium price set by the Medium Price Committee and the reference prices compiled by the Division of Rural Hospital in the Ministry of Public Health are for public hospital procurement purpose, the reference prices suggested here comprise the rates set for reimbursement.

There are a number of ways reimbursement rates for drugs can be determined. For the Australian PBS, the scheme, using a minimum pricing policy, pays the difference of copayment up to the listed price which normally is the lowest price brand [10]. In the UK, drug prices are determined by the Pharmaceutical Price Registration Scheme (PPRS) and are calculated based on the rate of return of the company. In Germany, reference prices of drugs are set for some competitive therapeutic classes, i.e., same reimbursement price applies to all products in the same class. In France, drug reimbursement prices are set by an Economic Committee using some formulae with reference to anticipated sales volume, the category of drugs in terms of novelty set by Transparency Committee and unknown factors [13].

In addition to paying the cost of drugs, insurance schemes in many developed countries pay a separate professional or dispensing fee to the pharmacists for their service [14].

12.3.3 Pharmacy accreditation

At present, pharmacies in Thailand are either established within the hospitals (hospital pharmacies), or operate separately outside of the hospitals-community pharmacies. Hospital pharmacies are regulated under the same legal framework of the laws controlling medical service facilities. Licensing is required for community pharmacies in order to open for business. Licensing, however, has not been an effective mechanism to ensure quality of pharmacy practice. The majority of community pharmacies in the class I category-which, according to the law, are required to have a full time pharmacist to carry out the pharmaceutical service functions-fail to comply to such requirement. In those drugstores, shop keepers and not pharmacists dispense all drugs.. It has been found again and again by many surveys that irrational dispensing is rampant [1, 15, 16]. Accreditation of pharmacies is thus necessary for community pharmacies to be enlisted to service beneficiaries under insurance plan(s).

Implementation of pharmacy accreditation can utilize knowledge from the hospital accreditation which has been underway for several years now . Several components are essential in carrying out a system of pharmacy accreditation. Quality guidelines have to be developed; Quality features and procedures have to be specified in the guidelines. These should cover at least three areas: 1) good pharmacy practice standards, including management of patient drug use profiles and information 2) qualification of personnel 3) physical features of premises and storage condition. In addition, specifications related to ensuring seamless quality care through different health settings in and outside a network will also be needed.

Quality guidelines by themselves are not sufficient for ensuring quality of care, however. A set of standards and guidelines constitutes only a component of quality assurance system. Mechanisms for quality assurance will also have to be devised to allow monitoring of the process and evaluation [17].

12.3.4 Pharmaceutical management information

Designing management systems that would allow effective monitoring and evaluation is an indispensable part of reform. Information is a key instrument for such purpose. Development of pharmaceutical information management systems has to be implemented for both the providers and purchaser(s). Information in areas such as drug utilization, price, procurement and inventory, and dispensing will have to be available.

To date, a number of efforts have been made to develop information management programs for pharmaceuticals to be used in hospitals. Two of them are developed by the collaboration between the Provincial Hospital Division at the Ministry of Public Health and the Faculty of Pharmaceutical Sciences, Chulalongkorn University. These two programs have been widely used in the Ministry of Public Health's hospitals.

- Inventory management program: This program has been implemented since 1990. It handles drug procurement and inventory management in hospital. Statistics produced include the rate of drug disbursement, stock volume, drug expiry date, procurement price, rate and volume, etc.

- Dispensing management program: This was developed in 1996. The program focuses on the management of pharmacies in the hospitals. It computes statistics on dispensing/utilization of drugs: type, price, and volume. This program can also be used for drug utilization review, when data are analyzed with patient records.

Because these two programs are highly flexible, each hospital can design its own 'working code' for drugs available in the hospital, as well as fields and other features. The main limitations identified are thus related to the widely diversified data structures. For example, different coding schemes and definitions of fields make it difficult to merge or compare data from different hospitals. Future developments will have to address such issues as coding, compatibility and data management so that the information system can assist the management of provider organizations and insurance systems.

In addition to the management tools described above, procedures must also be developed to allow efficient handling of reimbursement documents, and build in components that will prevent frauds and abuses. Furthermore, information related to utilization coming from such documents has to be put into the management information system (MIS) in an accurate and timely manner.

12.4 Key considerations for the development of pharmaceutical management tools

Development and implementation of pharmaceutical management tools not only require resources, but also compliance from many parties. Three considerations are the key to the success of implementing these tools: acceptability, simplicity, and effectiveness.

12.4.1 Acceptability

Drug lists, reference price lists, and procurement are developed with the main objective to contain costs of drugs, while pharmacy accreditation is for quality of dispensing and other pharmaceutical services. Because these management tools have an effect to restrict behavior of physicians, pharmacists, and others involved, the success of implementation relies heavily on the compliance of these people. These tools, therefore, have to be accepted by the parties involved. Clarity of decision criteria, transparency of procedures, and perceived neutrality of decision-makers in the development of drug list, price list, and establishing procurement guidelines and rules will help increase acceptance.

12.4.2 Simplicity

Any tools should be designed in such a way that it will be simple to apply. A complicated tool may cause difficulty in implementation, and eventually result in non-conformance.

12.4.3 Effectiveness

Concerns over acceptability and simplicity should not take priority over the effectiveness of these tools for cost containment and quality enhancement. For example, it is almost always the case that a larger number of drugs on a drug list would be more welcome by prescribers. But the larger the number of drugs on a list,

the lower its power to contain costs. The Thai's 1999 NLED is an example of compromising cost containment effect with greater acceptability. Consequently, question has been raised regarding whether the latest NLED still remains a valid cost control mechanism.

12.5 Conclusion

Several pharmaceutical management tools have been employed in Thailand over the past two decades with the main objectives of reducing government drug expenditures and promoting rational drug use. These tools include the National List of Essential Drugs, medium price, and collective procurement system. With the health sector reform movement underway, the existing management tools will have to be redesigned or refined in order to fit into new systems of health financing and delivery. Since the direction of the reform is towards instituting insurance-based universal coverage of health care, reimbursable drug lists, reference prices for reimbursement, pharmacy accreditation, and information systems will be key tools to manage pharmaceuticals in the new health sector landscape to serve cost and quality objectives.

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PART V:

Major reform movements and their implications on HI schemes

CHAPTER 13

Health Systems Reform in Thailand

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The establishment of Siriraj Hospital in Bangkok in 1886 marked the first historic health - sector reform in Thailand. Modern medicine initiated its role and finally replaced traditional Thai medicine [1]. Currently, there are 92 general hospitals in 76 provinces, 713 district hospitals in 795 districts as well as 473 private hospitals in the country. The development of the socio-economic status, health technology and societal governance has brought about a new manifestation of health problems, which cannot be solved through the existing developmental infrastructure.

Technocrats have called for "Health Care Reform" for decades, but it was just an academic propaganda. Political commitments to reform the whole health sector was ignited in the late1990s in the midst of the country's structural reform, then culminated into a strong national policy to address new health systems under National Health Acts. However, mustering a force that leverages a movement towards the health systems reform calls for a united effort to complement the developmental process as an integral part of mobilization of local and national communities. This includes interest groups at all levels. This learning cooperation will trigger the social movement that leads to sustainable reform of health systems.

13.1 Profile of the country

Thailand is a developing country inhabited by a population of 62.1 million (Inst. for Pop, & Research, Mahidol) with rapidly economic development in the last two decades and has been confronting a serious economic crisis in the last couple of years. Its health profile has reflected epidemiological transition where morbidity and mortality from infectious diseases and perinatal disability has declined and behavior based morbidity and mortality such as traffic accidents, AIDS and cardio - pulmonary diseases from smoking has increased [2].

In 1961, when planned development was first initiated, the per capita income of the Thai population was below that of several Sub-Saharan African countries. Since then it has increased 47 times in nominal terms. Since the mid-1980s, per capita incomes have grown in real terms by more than seven percent every year, reaching double digits in the period 1988-1990. Although income gains have not been shared equitably, there is overwhelming evidence that all socio-economic groups and all regions have recorded sharp increases in per capita and household incomes [3].

The past three decades have brought increased prosperity to the Thais. However, the people have also witnessed broad-based advances in the social fields, with progress closely matching overall growth performance. Marked improvement has been achieved in the field of health. The key to these improvements has been the progressive development of a national system of public health that today penetrates into the most inaccessible corners of the kingdom. The development of this decentralized system has made it possible to achieve sharp reductions in infant, child and maternal mortality rates, all of which have been halved in the past decade. Ten years have been added to life expectancy at birth since 1970, bringing it to about 70 years, one of the highest figures in the sub-region.

Many of the diseases that once claimed the lives of the majority of Thais have been eradicated or brought under control, with transmission rates near zero, facilitated by near universal child immunization. Third degree malnutrition among children has been eradicated and significant reduction has been achieved in first degree malnutrition in all regions. In the mid-1990s this affected less than one tenth of the children as compared to one third in the 1980s. Today, far larger numbers of Thais have access to clean water, safe sanitation and electricity, all of which have greatly added to overall levels of well-being. These developments have given Thailand a morbidity pattern that has more in common with that of an industrialized country.

Social development is paralleled by progress in the general area of governance. This reached its climax in 1997, which saw the promulgation of a new constitution. The Thai nation has built a more open and democratic society in which the basic rights of the population are safeguarded. Consequently the Thai people are provided with significant new opportunities to participate in all processes of development. The political reform has been driven the by civil-society's movement. It gained strength in the 1990s, when the need for political and social reforms became increasingly apparent. Civil society organizations have become a potent force for change and has played a decisive role in framing a reform agenda which has been shaped by the principles of democracy, participation and respect for basic human rights. As both Advocates and Watchdogs, they are involved in activities that go beyond traditional concepts of participation and even empowerment. They are spearheading the search for a new social paradigm based on a far-reaching process of political democratization.

The key to the progress of social and economic development is found in a combination of mutually reinforcing factors. They include high rates of economic growth, which have translated directly and indirectly into increases in disposable incomes, and strong commitment to investments in the social sectors, especially health and education. This has been instrumental in reducing vulnerability, increasing personal and family security, and enlarging opportunities. The poverty incidence, defined as the percentage of the population living below a predetermined poverty line, fell from 33 percent in 1988 to about 11 percent in 1996.

While Thailand can draw considerable satisfaction from its development over the past three decades, it is widely recognized and accepted that development has also entailed high costs in several areas. Firstly, the unbalanced nature of much of the development has already taken place, causing disparities among a marginalized population, which has access to social services and infrastructure. Secondly, the disruption of social structures and relationships has been observed, as well as the erosion of

social and cultural capital. Thirdly, there have been unsustainable levels of natural resource depletion and environmental pollution. Thailand has made good use of a philosophy of development based firmly on institutional compliance. In fact the country can make better use of this by applying the same broad vision to the problem of social security.

13.2 Economic crisis: causes and consequences

The year 1997 brought an abrupt end to the period of sustained economic growth. The seeds of economic crisis were planted in the fertile ground of financial liberalization in the early 1990s with the aim of enlarging access to the capital required to maintain growth momentum. This enabled more financial institutions to set up operations in Thailand, opening the way to more foreign funds, more competition in the financial system, turning Bangkok into a regional financial center.

A stable exchange rate, with the baht pegged to the US dollar, combined with large discrepancies between domestic and international interest rates, encouraged private companies to engage in offshore borrowing without hedging, with many financial institutions and large manufacturing firms accumulating significant foreign debts. This not only led an enormous inflow of the foreign funds required for investment but also to over-borrowing for speculation in non-productive sectors, such as real estate, private hospitals and the stock market, which was driven sharply upwards. The combination of high economic growth, an overvalued currency, and cheap money also encouraged over-consumption of imported luxury items.

At the same time, Thailand began to lose its competitiveness in some traditional industries. Wages went up faster than would be considered appropriate for levels of productivity and the skills of the labor force, with production increases achieved through investment rather than productivity gains. This was reflected in the loss of market shares in textiles, garments and footwear to a new generation of competitors like China, Bangladesh and Vietnam. The trade and current account deficits shot up to reach eight percent of GDP in 1995 and 1996, compared with 3.6 percent in 1989. Export performance, the motor that had driven the economic engine, became sluggish, and in 1996 failed to record any growth at all.

The combination of a ballooning government deficit and a sharp export decline led foreign speculators as well as local businessmen to conclude that the devaluation of the baht was inevitable. In the first six months of 1997, two massive attacks on the baht occurred. The gateways to foreign capital were no less effective as exits for capital flight. The government, with the encouragement of financial companies, banks and many large enterprises with large debts denominated in foreign currencies, sought to defend the dollar-pegged baht and to contain capital outflows. With the situation becoming increasingly untenable and foreign reserves becoming rapidly depleted, the Bank of Thailand announced a ‘managed float’ policy on July 2nd, 1997. This marked the first day of the crisis. Within six months, the baht had plummeted to 57 to the US dollar, a depreciation of some 50 percent - a level that had been unimaginable to the architects of the ‘managed float’.

13.2.1 Negative impact of the crisis

The depreciation of the baht wreaked havoc on the balance sheets of the corporate sector, many enterprises having large loans denominated in foreign currency.

The percentage of non-performing loans skyrocketed. The deterioration of their balance sheets made them poor credit risks. Industrial production plummeted, retail sales slumped, and many enterprises, especially small ones, lost all access to credit lines.

The crisis cost the country dearly. The Bank of Thailand spent US$23.6 billion in what proved to be a futile defense of the baht, while loans amounting to a staggering 430 billion baht had been extended to banks and finance companies. To these costs must be added the costs of restructuring loans held by finance companies and banks and writing off shareholder equities. This is estimated to cost some US$40-45 billion. These costs together amount to some US$80 billion, which is equivalent to about 70 percent of GDP.

The negative impacts of the crisis include:

- a sharp increase in unemployment
- greater underemployment
- reduced wages
- increased poverty
- reduced access to health services
- a reduction in the quality of health services
- distortion in the use of health infrastructure
- increased school dropouts
- increased family and community disintegration
- increased crime rates
- increased drug trafficking
- an increase in the incidence of malnutrition among children
- the growth of child labor and child prostitution
- a higher incidence of child abandonment
- greater stress and strain on the natural environment.

Overall, livelihoods became more uncertain and threatened, social capital was eroded, and vulnerable groups became more vulnerable [4].

However, the impacts of the crisis have not been entirely negative. At the *community level*, the crisis provided tangible evidence of the cohesion, harmony and unity existing in Thai society. In other words, the traditional family and community ties were strengthened and as a result, individuals were able to cope with stress. While the financial crisis has caused some other countries in the region to unravel at the seams, harmony and unity have enabled Thailand to weather the storm.

13.2.2 Development toward a self sufficient economy

The crisis has led many to question part of the orthodoxy that has underpinned the mainstream development strategy, leading increasing numbers of experts and lay - persons to search for alternatives outside the mainstream. It has certainly contributed to a reassessment of the role of agriculture and rural areas in national development strategy and their contribution to overall levels of well being and welfare. In a nation that is predominantly rural, rural development issues are today receiving far greater attention than in the past. Self-reliance and self-sufficiency, a tradition that has long been practiced by villages in many parts of Thailand, is being minutely studied in order to distill relevant lessons for the future.

13.2.3 Tool for development

The crisis has not only demonstrated the robustness of traditional survival mechanisms. It has also fostered greater self-reliance and self-sufficiency among local communities in both urban and rural areas. Communities that are well-managed and self-regulating have been particularly successful in coping with the crisis. Their success in responding to the challenges posed by economic difficulties has helped to instill in them a new sense of confidence and entrepreneurship, which is reflected in a wide range of initiatives. These new initiatives are not only making local communities less dependent but also more assertive, giving new meaning to the traditional understanding of social capital.

13.2.4 Civil society empowerment

The crisis did not bring an unconstitutional political change as it might once have done, but it has brought a silent revolution that may prove even more significant in the long run. The civil society movement has gained strength from the crisis and this strength is reflected in the vigorous pursuit of the reform agenda established by the new constitution. These forces appear irreversible and will no doubt accelerate trends already in evidence prior to the crisis towards further democratization of development. In this context the crisis has created a fertile breeding ground for many civil society initiatives. These initiatives would have been far less numerous without the crisis.

13.3 The policy and reform agenda

In 1997, the new constitution, driven mainly by civil society's movement, was promulgated. This policy established an enormous opportunity for further progress in restructuring the relationships between the state and civil society, in further democratizing the development process, and in creating new institutions and mechanisms that provide greater accountability, transparency, representation and participation. Initiatives in these areas have roots in law and are guided by far-reaching principles pertaining to basic human rights. It is of the utmost importance that these opportunities be seized to the full and remain central issues in the policy and reform agenda. Their full and effective utilization will allow civil society organizations to further flourish and to serve as a positive force for change as well as to enable them to serve more effectively as a countervailing force against the negative impacts of globalization.

13.3.1 New constitution and health

The new constitution has provided a crucial re-orientation for the health of Thais. Currently, health is stipulated as a human right, which must be protected by the state. An egalitarian standpoint is emphasized in the context of health for the first time in Thailand's political philosophy. An equal entitlement to health was introduced for a wide range of marginalized population, i.e., the elderly, the disabled and abandoned children etc. Consumer protection, particularly for the sake of health, is another area for government support.

Under a section on fundamental policy of the state, the government was imposed to efficiently provide public health service to all people on the same standard. The health service to control dangerous communicable disease has now become the state's obligation to be pursued free of charge. In order to comply with

the new constitution, devolution of various services to the local governments must be conducted urgently. Health service under the new constitution must be under the state of equity, efficiency, quality, as well as transparency and accountability to the community.

The policy and reform agenda calls for a re-examination of the health sector's approach to societal development, with the need to concern as much in terms of social capital as well as financial capital. The Ministry of Public Health should re-orient its vision and mission to this new paradigm of health and health care so that the new political philosophy can be achieved.

13.3.2 Decentralization

The Decentralization Act became effective in November 1999. This Act defines the roles and responsibilities of the National Decentralization Committee (NDC). A primary responsibility of the NDC is to produce a Decentralization Plan that will be submitted for cabinet and parliamentary approval. This plan will define the relationships and functional responsibilities between the central and local governments, as well as among local governments. It will define local revenue sources and identify means to improve local tax and revenue mobilization. The plan outlines the stages and means to transfer functions from the central government to local governments as well as to recommend means to coordinate the transfer of public officials from the central government, local governments, and state enterprises that are related to the new assignments of functions and resources [5].

According to the Decentralization Act, the public health mission and hospital mandate must be devolved on local governments. So, a crucial re-orientation needs to be undertaken by both the central government's officers and local government's officers. The central authority has to shift its mission from logistic administration and policy control to technical and quality assurance of health care. At the same time, the local government's authority has to be empowered so that it will be capable of providing equitable and efficient health care, which will be accountable for those people in their own community.

13.3.3 Public sector reform

Improving governance through enhanced public sector management is the hallmark of Thailand's three-year Public Sector Reform Program. The program involves both central agencies such as the Office of the Budget, the Office of Civil Service Commission, and other ministries such as the Education and Health Ministries. These ministries have embarked on substantial reforms to improve government decision making, deliver better services, and enhance transparency and accountability.

The economic crisis stained Thailand's budget system and revealed several structural weaknesses. These include:

1) Weak linkages among planning, budgeting and sectoral policy.
2) Ineffective targeting of expenditures towards the country's development objectives.
3) Insufficient fiscal transparency.
4) Excessive line-item expenditure controls.

Thailand's reform supports organizational and policy changes augmented by technical assistance in the Office of the Budget and selected line ministries. The reform areas comprise expenditure management, human resource management,

revenue management, decentralization and cross-government accountability and transparency.

Memoranda of understanding have been signed between the Office of the Budget and seven ministries or agencies for activity-based costing which are presently being developed. The Ministry of Public Health expects to reform its budget management for provincial health authority and provincial hospitals. The Department of Comptroller General and the Fiscal Policy Office have begun analyzing the issue of fiscal transparency. The development of the new accounting system is currently underway.

The Office of the Civil Service Commission (OCSC) oversees Thailand's human resource management reform program. It acts as the catalyst for change by encouraging the civil service to achieve the highest level of efficiency, quality and integrity. These reforms are expected to benefit society at large and to improve Thailand's international competitiveness. One of the key pillars of the reform program involves downsizing the Thai civil service by adjusting staffing levels to new public sector requirements. The early retirement program is the first phase of this program, and is expected to reduce the number of civil servants by at least 10 percent. Early retirees are receiving a gratuity and a regular pension based on their last salary and their years of service.

The new Constitution sets a framework for reforming the public sector and improving accountability, transparency, and mechanisms for combating corruption. For example, it provides more authority to the National Counter Corruption Commission, establishes new organizations to monitor and improve transparency, and grants legal rights for civil society to participate in the policy formulation process. The new Official Information Act provides greater access to public information and creates a great opportunity for the people to be involved in public service. This is a crucial leverage for nurturing the reform's process.

13.4 Health systems situation

Despite substantial gains in Thailand health over recent decades, inequities in health status have increased, the environment has deteriorated, and other obstacles to the attainment of "health for all" have appeared or reappeared. These developments challenge the public health community in its pursuit of the objective of "health for all" in the next century. During the past decade, Thailand has undergone a series of rapid changes. Fast paced and dramatic development has affected the health systems. The overall effects have made the health systems unable to adjust to the emerging circumstances of the current world. The following are situations, which have triggered a crisis in the health systems:

13.4.1 Health situation

Health statistics indicate that the Thais' health status is moving towards a crisis. The indicators and events in the Thai society which reflect the severity of the national health systems are as follows:

- Two thirds of Thais die before the age of 70 [6].
- Traffic accident causes more than 35,000 deaths annually.
- More than 30,000 people with HIV infection die annually.
- More than 11 million Thais are addicted to smoking [7], half of whom would

die of diseases caused by smoking.

- Use of narcotic substances is widespread among the general public and youth. Such an illegal business has expanded in scope and yielded a great profit to the producers as well as dealers.
- Emotional stress, commonplace among the population, leads to failures in jobs, violence, broken families, community disintegration and suicides.
- People shoulder a heavy burden of treatment expenses, judging by grievances from various groups on costs of health care. There are also demands for an improvement in service quality and professional ethics.
- The health care system is inefficient since it continues to increasingly misuse national resources as overhead expenditures. Thais have to pay for the health care services of up to US$5,000 million per annum [8]. The Asian Development Bank estimates that the real-term expenditures will increase five folds within the next few decades.
- More than 25 million Thais are without health insurance [9] and will suffer the consequences when they get sick. Moreover, two out of three of those with health insurance, namely the holders of the low-income health cards, cannot have access to the benefits they are entitled to.
- The public does not confide in the service quality of the health services due to a lack of a standard accreditation system. Therefore, the people attempt to seek services from well known medical experts in monumental tertiary care hospitals or put their faith on the advanced and costly medical technology and equipment.

Improving the opportunities for health in a diverse, changing, and inequitable world calls for a careful examination of the basis of decisions made locally, nationally, and internationally. Cross-cutting issues of central importance in the health sector reform comprise a strategy to achieve the objectives of health and a means for further defining the frontiers of what is possible and how it can be pursued. Efforts should be focused on the most urgent and pressing health issues, and on those problems that affect the largest numbers.

13.4.2 Health concern for society

Statistical evidence that shows clear signs of a looming crisis indicates that health problems are not just the concern of individuals but of the country as a whole. The majority of people are accustomed to the conventional health systems which were designed and developed under the state authority and relies on state mechanisms in formulating the policy on the health care system. Illness and death are still considered individual suffering rather than infliction jointly shared by all members of society. The people are used to these conditions in health care institutions, however, there is an increasing trend towards commercialization of medical care.

Considering these issues from another perspective reflects a more innovative reform concept. It implies that the state of the problems presented by academics in the forms of statistical trends of health status and existing health care system has never depicted the scenario as an actual hardship. The fact that people do not take control in solving health problems they are confronting may result from their lack of thoroughness in assessing health problems and the ability to relate the problem to factors from their socio-economic environments. This ignorance is caused by a shortage of mechanisms or opportunities that allow people to criticize for the sake of

improving the health systems as well as to participate in the process of the health systems reform.

13.4.3 Alternative health care

Posing conflicts between the society's culture and the modern medical practice is the development of alternative health care. Under the current health systems, the professional health personnel fully possess the authority to impose the medical technology that will be used for the treatment without any concerns for feedback of grievances from patients. However, people have recently started to voice their needs for more information so that they can make better judgments. They are also demanding more transparency in the medical practice system and procedures. At the same time, various communities have introduced alternative health practices, i.e., traditional medicine, various techniques of health promotion and health behavior, which are a combination of bio-scientific evolution, traditional wisdom and spiritual healing.

The alternative methods differ from the western medicine perspective and subsequently ignite conflicting views with the modern medical community. The ongoing expansion of the alternative health care process can benefit the population since it increases the availability of health care options. However, some choices may not be useful and even cause harmful effects. Therefore, it is important to develop a resourceful information system and efficient consumers - protection mechanisms that truly cater to people's needs.

13.5 Health systems reform

Currently, Thailand's health systems are facing a financial crisis, demographic and epidemiological changes, and an increasing demand for more and costlier services. In response, widespread health systems reform is being undertaken by the Thai government. The capacity to provide the information required - for better decision-making in health systems reform is essential. A critical part of this is knowledge of the economic and equity implications of health interventions. Thus, it is important to develop a practical and sustainable process to reform the health of the nation.

The cabinet approved a national agenda for Health Systems Reform on May 9th, 2000. They entrusted the Health Systems Research Institute as the secretariat office for National Health System Reform Committee (NHSRC) under the chairmanship of the Prime Minister. The Committee's aims include drafting a National Health Act to guide national health systems, mobilizing the civil society and interest groups to re-orient their health needs and responsibility, and proposing essential health infrastructure to sustain the new health systems.

13.5.1 Philosophy of the health systems

The National Health Act was been expected to lead to a new health paradigm, which will be a road map to redress the health infrastructure of the country. Based on a series of broad discourses on intricate health systems in Thai society, the conceptual framework of the National Health Act has to include eight essential elements. They are:

1) **Holistic approach:** Health should be defined as a dynamic state of complete physical, mental, social and spiritual well-being. In this regard, health development and health care should be integrated and designed to respond

to all of these demands.

2) **Participatory:** To comply with the new constitution, all stakeholders must be regarded as partners in executing the health systems of the country as well as of the community.
3) **Healthy Public Policy:** Public policy promulgated in the country may be harmful or cause adverse effects to the health of the people. Thus, the control and review of all side effects of public policy is an essential key.
4) **Equity:** Health promotion and health care should be delivered with equality. This may lead to a universal coverage of health care, however, feasibility and affordability of the state's capacity as well as the community's self reliance should be taken into account.
5) **Efficiency:** Health service must be re-oriented from passive to be proactive so that cost-containment of health care may be truly achieved. Health technology and intervention need to be well assessed to optimize the benefits for the people.
6) **Quality:** Health technology is always a mysterious issue. Quality accreditation should be undertaken by the state so that unqualified health care will not be disguised by distorted advertisement.
7) **Consumer empowerment:** Consumers should be empowered to be capable of safeguarding themselves from unjust propaganda of health services and products.
8) **Self-reliant:** Thai society should rely on the country's own health capacity. Health technology development and research should be aimed to empower the community and national authority so that they will not depend on imported technology and concepts.

All these directions will be instilled as a strong ground for the drafting process of the National Health Act, which would be completed for submission to parliament in three years.

13.5.2 Issues for health systems reform

The new constitution, a process of the country's structural reform and societal evolution - a consequence of the economic crisis - are strong fostering factors which makes clear demands for health sector reform. The outline of the National Health Act has been formulated and will be adopted and elaborated in the NHSRC. It is anticipated that the issues included in the act will comprise:

1) **Organization to guide health policy of the nation:** A national health council will be set up to coordinate all the state policies, which may influence people's health. Since the health related policies are delivered from various sectors, it is necessary to observe the health consequence of societal implementation.
2) **Health promotion:** Create a mechanism, which can proactively build up a healthy life style for people e.g. create financing and tax-policy which can encourage the people to live a healthy life.
3) **Disease control and prevention:** Emerging diseases, which include infectious diseases, non-communicable diseases, injuries, and human toxic substances, should be observed under the national surveillance system. The evolution of novel diseases, which may be aggravated to the state of pandemic through globalization, can jeopardize the well-being of humans.

The national authority to provide technical support to the local government as well as network with other countries in disease control and prevention should be created.

4) **Health care:** The existing health care system need to be reformed. There are wide ranges of studies and reviews in this area. Managed care with the appropriate public-private mix is recommended through many R&Ds conducted in more than 20 provinces in the country. The autonomous hospital is in its first trial phase in one community hospital and is being prepared in another six provincial hospitals. This may bring a new mechanism of governance to hospital where the community, local government and central government can be equal partners of hospital ownership. The provincial health board is about to respond to the national structural reform.
5) **Health care finance:** Universal coverage is supported by the new constitution. Feasibility studies have been conducted to confirm the possibility of the policy. Expansion of the insurance program to cover preventive and health promotive procedures needs to be reviewed in some insurance schemes. Various payment mechanisms employed in Thailand (Capitation, Case basis, Fee for services) have been evaluated and will be the basis for the design of an effective and efficient policy.
6) **Health service development and accreditation:** The Hospital Accreditation Institute was established as a new mechanism to support hospital development and accreditation a year ago. This can provide service to all hospitals in the countries. However, other kinds of health care providers also need to be supported so that they can have access to quality assurance mechanisms either in terms of consumer protection or professional associations. The act may address the connection of the financial scheme with this quality control regulation.
7) **Consumer protection:** The system to safeguard the consumers' rights, investigate any violation, as well as compensate the litigation should be created under the new constitution. The consumer - protection mechanism should be established close to the community. However, a national network to provide detailed and essential information to community organizations is still in great demand.
8) **Technology assessment:** Expensive health-technology has developed through an innovative scientific basis. In the near future, decentralization will encourage individual local health authorities to be more independent in order to purchase these technological products. A central institute for technology assessment will be recommended to cope with any pitfalls. Its role will cover the standard procedures for diagnosis and treatment as well as the assessment of demand for medical equipment and distribution.
9) **Health man-power development:** Health man-power planning has to be coordinated among the health providers, clients, and the producers since the cost of education for these personnel is very high. The ethical regulation of health professionals is more essential in the world of commercialization. Thus a national organization should be established to take on the responsibility of planning and regulating the production and service of these personnel.

10) **Alternative medicine:** Thai society has employed a variety of alternative care treatments, which need to be validated and optimized for the benefit of the people. Quality assurance and regulation of modern medicine cannot be applied to cover these areas. Mechanisms to support and regulate the alternative health services should be addressed.
11) **Health research system:** Since Thailand is a developing country, the investment in health research is very low. Paradoxically, health authority demands depend more and more on imported medical equipment as well as drugs. A new structure for health research should be created to manage the kind of research, which can be collaborated with industrial countries in order to transfer manufacturing technology. In this way Thailand can be self-reliant.

Issues included in the National Health Act are very broad, but all are interrelated. Intervention of a single issue cannot restructure all the health systems. In fact it may cause a failed reform. Thus, holistic reform to integrate all of these issues will be mutually supportive tools for health systems.

13.5.3 Strategy for reform:

The ongoing reform strategies propose a turning point that emphasizes civil society and community as a major element of the national health policy formulation and the responsible agency to translate the health policy into action. The views for action should be so concrete that it stimulates change in the health systems for optimal quality, equity and efficiency. Such a strategy stems from the visionary trends of the adjustment among the Thai people in the next decade when self-governance will be more advanced. In addition, the new constitution stipulates that there must be more decentralization of administrative power to the agencies at the community, local and regional levels.

Therefore, a series of research studies for the health systems reform has been set up to mobilize community groups. These groups comprise agencies and government organizations whose missions are relevant to the population's health problems and various community organizations ranging from the grassroots, local and provincial community, to public and non-government organizations. The groups will be invited to participate in research studies on problems concerning the health issues and community experiences dealing with the social and health problems. Moreover, holding a dialogue among experts in the international health systems reform will help to encourage various communities to tackle their own health problems with the wealth of knowledge, which they collectively accumulated. These knowledge-based findings can be applied to the infrastructure development at the community, local, provincial and national level.

The utilization of a series of research studies as a mobilizing strategy of community wisdom, which is later analyzed and synthesized into health systems reform directives, requires many exchange forums and collaborative studies of research results. The National Health Assembly (August 2000) was set up to address a common vision for desirable health systems by various groups of stakeholders. It is expected that this will lead to a concrete endeavor of the health sector reform, especially strategic plan and action plan of various groups. Parts of the health system reform policy can be addressed in the forms of law, structural reshape, and allocative responsibility according to the partners' level of governance.

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CHAPTER 14

Public Sector and Management Reform and Future Development of Health Insurance in Thailand: Hospital Autonomy and Devolution

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14.1 Introduction

The Thai health system is dominated by the public sector and therefore any changes in the public sector will have quite a significant impact on the system as a whole. The Thai government has initiated the public sector reform movement aimed mostly at downsizing the public sector for more than 10 years. In 1998, the cabinet drew up a plan for systematic reform of the public sector with five components, redefining the roles of various public agencies, reforming human resources, the financing and budgeting system, the rules and regulations including legislative reform and organization cultural reform [(1)]. They have set up plans to restructure as well as re-orientate the various roles and functions and public service provision of certain government agencies. The Ministry of Commerce and the Ministry of Finance are the target ministries from the economic development perspectives. The Ministry of Education and the Ministry of Public Health (MoPH) deal directly with social services.

MoPH initially focused on redefining the roles of various departments in the ministry aiming at downsizing the workforce and reorganizing them into autonomous government agencies without taking into consideration the overall needs of the health systems. The strategies for the reform then were to identify possible actors in the system who could perform various roles and functions of the targeted ministries. These include the private sector, local governments and other closely related government units. MoPH's proposal for reform was approved by the cabinet but was not seriously implemented [(2)].

With two important developments in late 1998 and late 1999, the whole reform movement of the MoPH changed dramatically. Due to the economic crisis, the Thai government asked for a loan on Social Sector Reform from the Asian Development Bank in 1998, which called for various social sector reform efforts including the corporatization of public hospitals [(3)]. In November 1999 the House of Parliament passed the legislation on the Operationalization of Decentralization to the Local Administration Units [(4)]. This required various ministries, including the MoPH, to devolve their functions as well as facilities and manpower to the local administration within the following 10 years.

14.2 Public hospitals reform in Thailand

14.2.1 The health care infrastructure

The attempt to reform public hospitals in Thailand is not a recent movement introduced after the economic crisis and mandated by the loan from the ADB. On the contrary, it has an interesting development of both the concept and forms of an organizational reform. This was due to the fact that public hospitals are crucial providers, especially to the rural population rather than the need to downsize the public sector. In fact this has been a very important basis of disagreement between the central agency for public sector reform and the MoPH which is in charge of more than 75 percent of

Table 14.1 The various service facilities over the country, 1998.

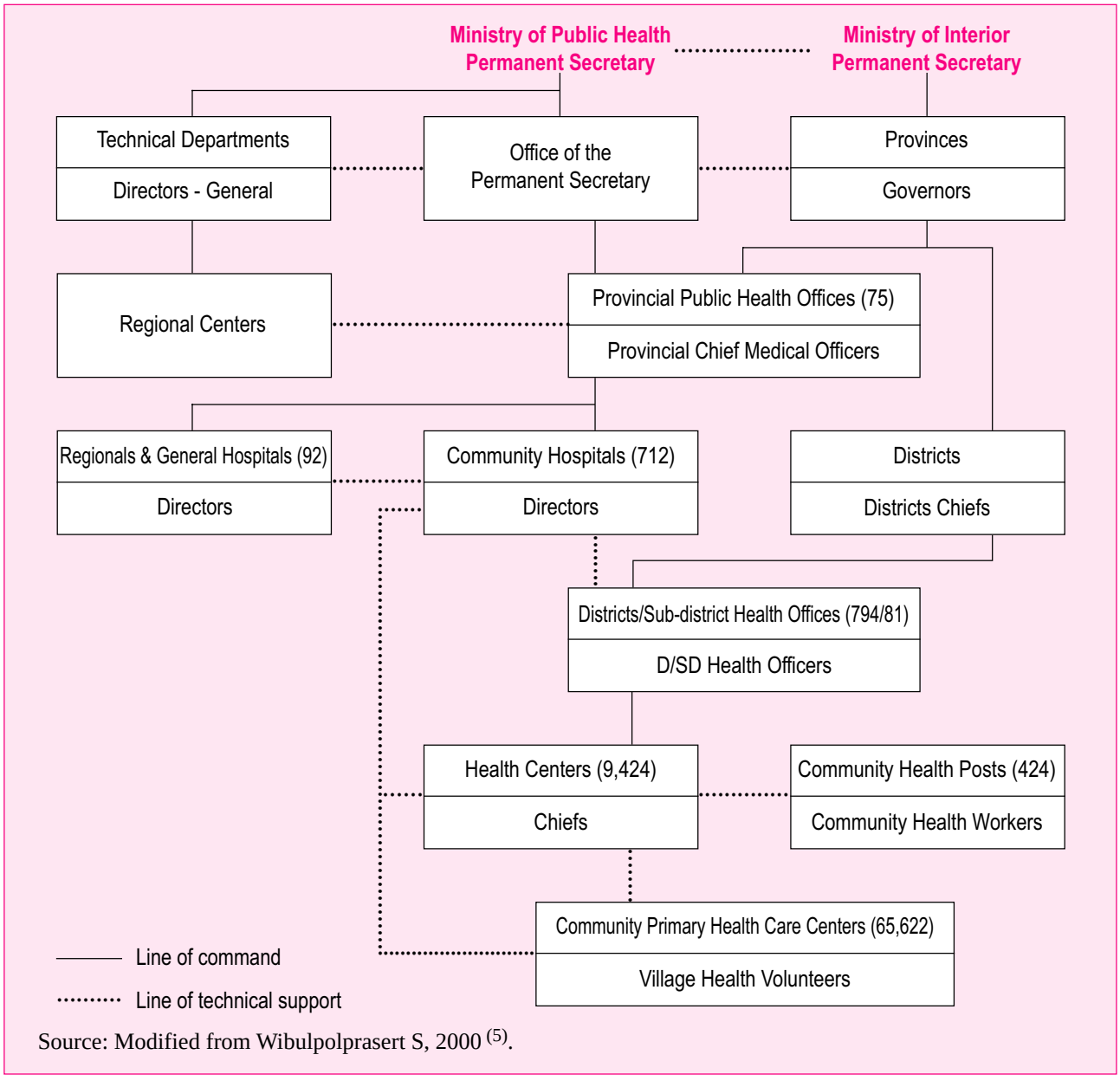
Administrative Level	Health Facility	Number	Coverage
Bangkok Metropolis	Medical school hospitals	5	-
	General hospitals	29	-
	● MoPH	4	-
	● Ministry of Interior (excluding BMA)	5	-
	● Ministry of Defense	7	-
	● BMA	8	-
	● State enterprises	4	-
	● Ministry of Agriculture & Cooperatives	1	-
	Specialized hospitals/institutions	19	-
	Public health centers/branches	60-83	-
	10-bed hospital (BMA)	3	-
Regional	Medical school hospitals	4	All districts in BMA
(4 regions)	Regional hospitals	25	
	Specialized hospitals:	38	
	● Maternal & Child health hospitals	9	
	● Psychiatric hospitals	10	
	● Neurosis hospitals	2	
	● Leprosy hospital	1	
	● Communicable disease hospitals	2	
	● Chest hospital	1	
	● Cancer prevention & control centers	6	
	● Drug addiction treatment centers	5	
	● Hearing center	1	
	● Center for the elderly	1	
Provincial	General hospitals (1999) under the MoPH	67	100%
(75 Provinces)	Military hospitals under Min. of Defense	56	
District	Community hospitals (March 99)	712	89.56%
(795 districts, 81 sub-districts	Extended OPD (March 99)	1	
and 7,255 tambons)	Municipal health centers (April 99)	212	
	Health centers (March 99)	9,689	100%
Village	Community PHC centers		
(68,881 villages)	● Rural	67,376	97.8%
	● Urban	1,732	

Source: Wibulpolprasert S, 2000 [5].

hospitals and more than 90 percent of hospital beds in the public sector throughout the country.

The MoPH has been the major health service provider for those outside of Bangkok for the last 50 years. It gradually expanded the coverage of health facilities at various levels as well as restructured its management system in the provinces. Presently the provincial health offices throughout the country oversee the health development activities and support the various health services facilities of the ministry [5]. These facilities include general/regional hospitals at the provincial level, community hospitals at the district level, and health centers at the subdistrict (tambon) level. They form a network of service facilities that work to provide tertiary, secondary and primary care to the people in each province. The community hospitals and health centers also work closely with the communities through a network of health volunteers and community development groups (Figure 14.1). In the provinces outside of Bangkok, there are also other public providers (such as military and univer-

Figure 14.1 Diagram of service network within the MoPH in the provinces.



Source: Modified from Wibulpolprasert S, 2000 [5].

sity hospitals) as well as private providers of health care. However, they have a much smaller coverage of the population except for drug stores and private clinics. On average, there are 1.2 general/regional hospitals, 10.2 community hospitals and 100 health centers in each of the 75 provinces (excluding Bangkok which has its own complex system of health care providers).

14.2.2 Pressure for reform of public hospitals

Despite all its achievements, the health service delivery stills needs to be further developed, both in the private and public sectors. In the public sector, overcrowding and a long waiting line as well as inaccessibility are still common problems despite the increase in both the number of facilities and manpower.

Within the past decade, there has been an increase of 160 percent of outpatient visits but only an increase of 13 percent of doctors at the community hospital level. This means a 2.3 increase in the number of outpatients seen by each doctor (from 33 to 77 per day). In general and regional hospitals, the increase is 80 percent in OPD visits and a three percent increase of doctors. The number of outpatients seen per doctor increased by 1.6 times at this level. (14.5 to 23 per day) [6]. On the whole, the number of OPD visits to hospitals has increased by 140 percent (1989-1998) while the number of doctors has increased by 5 percent (1989-1997). Many patients complained about the hospitals' lack of efficiency.

As for the private sector, the workload is lower but the accessibility is also low for most of the Thai population. The main reason is the policy of supporting private hospital services as a type of private business and thus leaving its operation to the usual market mechanism which relies heavily on the willingness and the ability to pay.

Management in public hospitals is highly centralized. The staffing pattern, staff payment and many other manpower management practices are all determined by the central government agencies involving the Office of the Budget, the Office of Civil Service Commission, the Department of the Comptroller General and MoPH [7]. Although hospitals can generate its own revenue through user charges, such revenue can only be used for manpower expenditures through centrally determined rates, rules and regulations. Budgetary allocation to hospitals is determined by the central ministry through line-item budgets. More than 70 percent of this budget are for staff salaries and cannot be used for other purposes [8]. The operating budget has to be used up at the end of the fiscal year or surrendered to the government. Hospital performance assessment is hardly implemented except through routine supervision and the reporting system. Accountability is low and responsiveness to the patients is inadequate.

Many efforts have been carried out to improve the performance of public hospitals along with the improvement of other levels of health service facilities in the public sector, especially in the MoPH. Developing the quality of service has been carried out and presently there are 19 health service networks all over the country [9]. Intensive investment to upgrade and renovate buildings and to purchase new equipment for large hospitals has taken place during the period of high economic growth [10]. Campaigns and training towards clean and caring hospitals have taken place. More recently a national movement for hospital accreditation has been initiated through the collaboration of both the public and private sectors [11]. The questions raised during these efforts of improvement were: should Thailand create a new type of public hospital that will encourage efficient management and respon-

siveness to the patients? And should the country create private management under public ownership? The Health Systems Research Institute identified the needs for reform of public hospitals as a priority research area in its first four year plan (1993-1996) [12]. The effort then was to create an operational research project through agreement with various central government agencies in order to develop models for self-governing public hospitals.

These questions or plans were not successful because of the lack of a strong policy support from all fronts. Only a few studies aimed to develop new financial management and the only plan implemented was the financing options for public hospitals. There were also studies about hospital reforms in neighboring countries such as Hong Kong and Singapore [13]. At the same time there was an effort to de-bureaucratize public universities.

14.2.3 The move towards public hospital reform

With the economic crisis in 1997, the Thai government was faced with the unavoidable needs for reform at all fronts. Public policies and many public institutions were targets for reform. Many of the reforms came from the international banks offering loans to Thailand. Optimism and pessimism were mixed with regards to the agreement for reforms. The Asian Development Bank (ADB) offered a Social Sector Reform Loan (SSRL) to the Thai government so that the government could reform public institutions and policies in three major social sectors-education, labor and health. Conditions for the health sector included, among others, the need to corporatize public hospitals, focussing mainly on those in the MoPH. The loan required that at least one public hospital is corporatized by the beginning of 1999. It also provided technical support by contracting a team to carry out studies and provided advice on how to coporatize public hospitals and carry out various other reforms.

14.2.4 Clarifying the concept and setting the strategy for public hospital reform

The ADB loan conditions along with the provision of the technical team set a very useful forum to merge many of the on-going efforts and proposals for reforming public hospitals in the country. Of particular importance is that it provided an opportunity to seriously revise the viewpoints, the opportunities and also studies carried out earlier to meet with the political and economic background of the country.

a. **The possible spectrum for reform.** Many groups advocating for public hospital reforms were using different terms to describe their proposals but there were basic differences in their implication on the final model. The technical team of the ADB started with the conceptual framework proposed by Breman, et al [14]. This provided a broad spectrum of possible models within which the various proposals might be adapted. This was further clarified by the Singaporean experiences [15] where the term privatization was initially used to reflect the Singaporean government's goals. However, it was then changed to corporatize in order to avoid misinterpretation that the reformed public hospitals are private companies whose aims are for profit. However, the organizational form used in Singapore was criticized as being too business-like as the new public hospital has to be registered as a business company in order to avoid being considered a government entity. Even the term corporatize seemed to

suggest a profit motive and thus was not well accepted by many of the previous advocates for public hospital reform. Finally the term autonomous public hospital was adopted. Many of the key characteristics of the autonomous public hospitals included the need for the hospitals to carry out public functions, the possibility to have flexible management practices by setting its own rules and regulations with regards to manpower and financial resources management.

They were also obliged to carry out policies and programs deemed necessary by the government. The overall governance of the hospitals would be public in nature but would be decentralized as much as possible to the individual hospital.

b. **The organizational forms.** In order to ensure that the new public hospitals continue to perform public functions, it was agreed to adopt a new organizational form for the public sector rather than resorting to the private organizational forms. In this respect, the new public hospitals would need an act, a legislative document, to establish them as a legal entity. Previously this would mean the need to have a new legislation that would be reviewed and approved by the House of Parliament. However, because of the Act of Public Organizations passed in 1999, it was possible to establish the reformed public hospitals as public organizations and thus achieve many of the desirable characteristics described earlier. Under such provisions, a hospital board (16) would be established to represent the state in overseeing the management of each new public hospital.

c. **Ensuring better responsiveness to the local communities.** One issue that was missing was to provide assurance of the hospital's responsiveness to the local community. This was due to the assumption that once public hospitals are self-financed and released from the bureaucratic setting, the staff would be more responsive to their patients. However, being responsive to patients who can pay and being responsive to the health needs of the community are two separate issues that need to be clarified. It was quite clear that many of the advocates for public hospital reform were trying to identify the model where the central control by the Ministry of Public Health would be effectively replaced by the community where the hospitals are located.

This has been incorporated into the structure for hospital governance, i.e. the hospital boards. Representatives from communities will form a crucial part of the governing board of the hospital (17).

d. **Sources of Finance.** While the reformed public hospitals can still impose user charges, the aim will not be for the hospitals to be totally self-financed. The government will be required to provide budgetary support to the hospitals. This would better reflect the obligation of the hospitals to carry out the governments' policies and avoid the conventional budgetary practices. They will have to be more performance-based with clearly established accountability. The actual amount of budgetary support from the government would be determined and worked out on a one on one basis rather than through a uniform formula.

e. **Central control and coordination for the autonomous hospitals**. Conceptually the aim of establishing autonomous public hospitals is not to

create a highly fragmented health system with each hospital minding its own business. Consequently it was suggested that the government establish an effective mechanism that will carry out active roles in coordinating these public hospitals. The minimal control and coordinating function is to ensure proper expansion of the hospital infrastructure. Left on its own, each hospital may tend to impose aggressive marketing and demand creation that may introduce unhealthy competition and lead to oversupply of health facilities, especially hospital beds, high-cost and "high-tech" equipment.

However, there were arguments as to the degree of coordination and control that would be required by the central government. One tendency is for the central government to justify the need to have a well-coordinated hospital network and to impose control on everything, including detailed manpower payment scale and procurement of different supplies and equipment.

It is not easy to find the balance but it is crucial to keep this in mind while imposing control and coordinating functions.

14.2.5 The chosen model and its implication

It was finally recommended to establish the new autonomous public hospitals under the new Act of Public Organizations. Initially the Ministry of Public Health planned to have at least seven hospitals piloting the reform. This would cover a wide range of hospital sizes in various parts of the country. It would also provide a good opportunity to better identify the strengths and weaknesses as well as the needs for system development among health personnel, managers and community members. However, due to skepticism of the public about the rationale for reform and the lack of concerted support from the political side and resistance from the health personnel, only one community hospital has been made into an autonomous public hospital [18]. The experiences to date are still minimal to provide any lessons for the future.

Even though only one small community hospital has become autonomous, there are clear evidences that the present government system is poorly equipped to deal with the reform needed. The budgetary aspect posed immediate concerns. The conventional budgeting requirement needed to be changed but those involved were unprepared if not unwilling to change. The government could not successfully convince the public and the health personnel that the motive for reform is for better efficiency. There were actually conflicting views from government officials about the future of the autonomous hospital. The most crucial issue is the degree to which it is expected to be self-financed and its implication on the cost of services to the general public. Without clear directions and policies about health care financing for the population, it is not easy to convince the public that the new autonomous public status will not lead to increased user charges [19].

14.3 Decentralization and devolution in the health sector

14.3.1 The legislative background

Reforming public hospitals with the introduction of the concept and model of the autonomous public hospital was still an unsettled issue when the House of Parliament passed the Act on Operationalization of Decentralization in 1999. The Act was

an organic law of the new constitution adopted in October 1997 [20]. It mandated that all ministries involved, including the MOPH, draw up detailed plans to devolve their functions, facilities and personnel to the local administration, mainly the Tambon Administrative Organization (TAO) and the municipalities within the next 10 years (2010). It was clear that the large public hospital network including the health centers under the MoPH will have to turned over to the approximately 9,000 local administrations.

Devolution of crucial public services to the local administration is but one of the points of the decentralization act. The more important component of the legislation is the goal to increase the proportion of revenue of the local administration from the present level of nine percent of total public revenuer to 20 percent in 2001 and to 35 percent in 2006 [21]. Such redistribution would enable the local administration to take up active roles in providing various social services under their responsibility as mandated by the act. There are six major groups of functions to be carried out by the local administration. They include the building of essential infrastructure, the improvement of the quality of life (health services and education are the major two among this group), and social and community management, planning and local investment and tourism, environmental, civil, natural resources management, culture and local wisdom [22]. The government plans to increase the local revenue by allowing them to collect more tax locally and also by allowing them to retain a larger portion of the tax collected to be used locally. Such an arrangement will reduce the revenue at the central level and will alter the roles and functions of the central ministries. This will then correspond with the needs to devolve facilities and manpower to the local governments.

14.3.2 The debates about decentralization and health

In order to meet the goal of decentralizing, the MoPH can simply transfer the various health services facilities and manpower as well as available budget to the local administration. This will result in shifting about 80 percent of the annual budget of the MoPH and around 90 percent of its staff to the local administration units.

(1) The concern over fragmentation of services

The two basic units of local administration, the TAO and the municipalities, cover a limited geographical area with slightly different population sizes. The basic criteria for differentiating between the two are historical. Municipalities are those local administrative units established before the introduction of the TAO [23]. They were present only in those selected locations with more developed economy. The TAO was introduced only in 1995 [24] to establish local administration units all over the country. Both are smaller in size than a district. However because of the more developed nature of the municipalities, they have been the sites of many community hospitals and general or regional hospitals under the MoPH. For most TAO, there are health centers with only about three to five auxiliary health personnel. Both TAO and municipalities will generate more revenue to independently carry out their designated social functions without the need to coordinate with each other. There was a concern that such a mandate will lead to a fragmented and uncoordinated as well as an uncontrolled growth of the system. Moreover health centers, community hospitals, general and regional hospitals are expected to coordinate closely for effective patient referral. Operated independently under separate local administration, the chain of patient

referral will become even more fragmented.

Putting different health facilities under separate administrations will not pose problems in terms of patient referral if the financial mechanism is efficient. In the absence of such mechanism, the alternative is to put various levels of health facilities under the same administration. However, the existing local administration is too small to take care of multiple level health facilities. Hence there is a need to create a larger local administrative unit for health by combining various local administrations in nearby localities to create an Area Health Board (AHB) [25].

(2) Concern over good governance

One major concern raised by health personnel is the relative inexperience of the local administration. Most local administrations, especially the TAO, were recently established. They are still unsettled about the proper size and extent of functions and its management set-up. At present there is a small management unit with newly recruited staff. They are seen as poorly equipped to deal with the most basic management not to mention handling relatively well established health facilities with a large budget and a large number of staff. Most local administrations deal with small local development projects and they are oriented in creating more infrastructures such as local roads and sources of water supply. However, they have not been trained to carry out maintenance functions let alone carry out continuous service provision. Last but not least, corruption and lack of transparency plague local politics. These were the major arguments among government officers who are against the transfer to local administration [26].

In the health sector, with the introduction of the area health board it was also proposed that a multi-party governance be created within the area health board. Rather than a mere combination of various local administration in the nearby geographical area, the area health board will consist of representatives from the MoPH and respected persons who have experience in health and management [27]. This will help to bring more expertise in planning and decision making and help to build up transparency and confidence in the local health administration. It will also help to guarantee that local civic groups or communities will be better incorporated in overseeing or contributing to the local health development efforts rather than leaving them exclusively to the politically inclined local administration.

(3) Concern over efficiency.

The local administration would continue to manage the transferred facilities in the conventional command and control manner, imposing various rules and regulations that will not allow enough flexibility in the use of available resources for service provision. The transformation of public hospitals into autonomous hospitals and the introduction of performance-based budgeting system [28] are the two initiatives towards improving efficiency within public facilities.

(4) Concern over future employment status and conditions

Like all changes, the call for transfer of personnel to the local administration created panic and a sense of instability among the health personnel. As civil servants they were guaranteed their life long employment with pension as well as many other welfare and benefits. The concern over the lack of transparency of the local administration further aggravated the issue for fear of being unjustly discharged from

services. Moreover, the present civil service system guarantees the possibility of transfer to any province throughout the country. With the new system it is likely that any health personnel working at a local administration will have less possibility of transferring to another province or local administration [29]. According to the Decentralization Act, the detailed plan has to be finished within one year so as to have a master plan for the next 10 years. There are too many issues to be settled before the deadline is met.

The decentralization movement with the mandate to devolve to the local administration consequently posed a classic challenge to the authorities concerned. There should not be any disproportionate amount of anxiety to create unnecessary resistance. On the other hand many crucial issues need to be clarified to ensure the creation of a new system. Since the present health system is satisfactorily serving the majority of the population, this issue is even more crucial. Last but not least, the system needs to identify the needs for capacity building to ensure the emergence of an effective decentralized system with various parties properly carrying out their new roles and functions.

14.3.3 The reluctance to decentralize and the semi-status quo model

Because of the relatively short time frame for the decentralization act to take effect, a group of administrators proposed to only devolve the authority over the operating budget to the local administration. It was argued that the decentralization act called for the transfer of responsibility in health to the local administration while allowing the central ministry to lend a hand in providing the much-needed services [30]. While it is desirable to allow the local administration to have as much direct responsibility as possible and to transfer all resources needed to the local administration, it would be better to wait until the local administration is adequately prepared and oriented. It would be a great risk to transfer all authority only for the sake of decentralization as this may disrupt the already well functioning health service system.

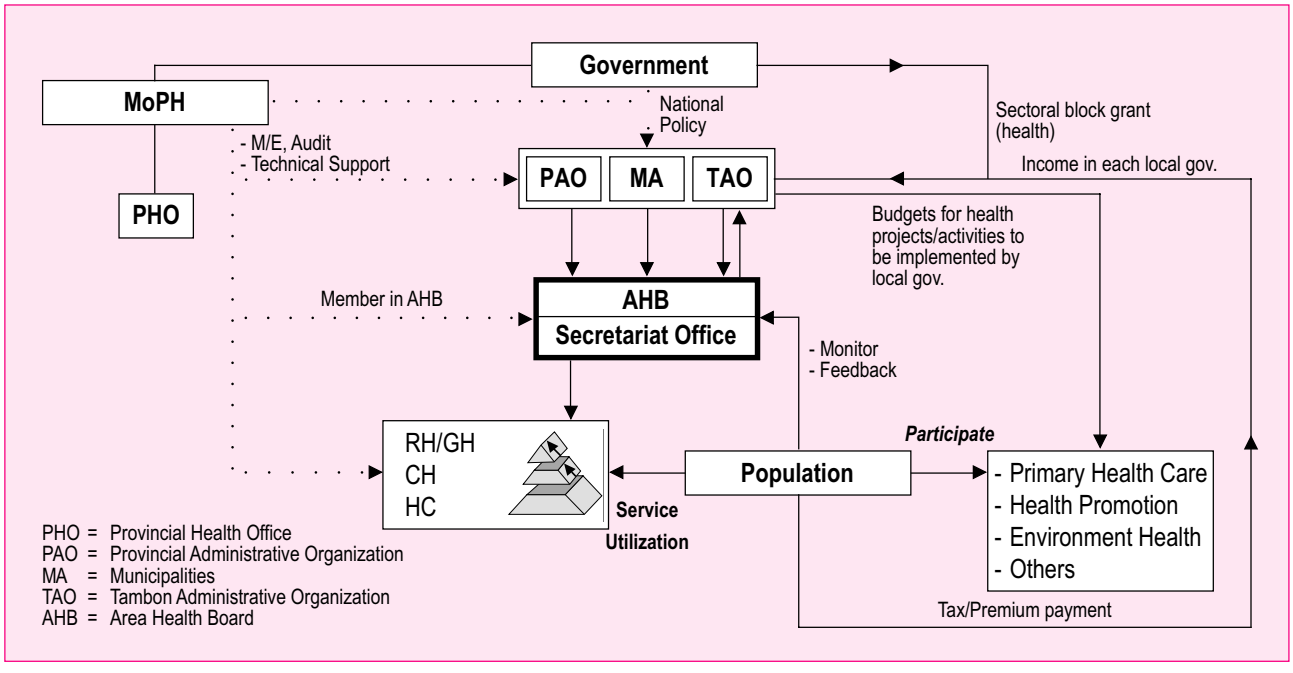
With this proposal, the health services delivery system would remain under the responsibility of the central ministry and managed by the provincial health office and the related managers appointed by the central ministry. However, the operating budget of all these health facilities would be allocated by the concerned local administration. It was proposed that whatever the level of allocation, the mechanism involved would be a joint mechanism consisting of the local administration and MoPH staff in the provinces. This will help to ensure that the health facilities will continue to receive the operating budget needed while the local administration will be brought into the planning and budget allocation process although they may still lack the total decision making authority. Such a model would also allow the contribution from the local budget once more revenue is generated. However, most of the local administration were strongly against this model and saw this as the unwillingness of the ministry to decentralize.

14.3.4 The proposed aggregated model and its implication on the future health care financing system

Based on the concerns and issues mentioned above, it was proposed to create a decentralized health system with some additional features. The most important one is the establishment of the new local health administration, the Area Health Board (AHB).

The AHB will be responsible for health development activities in the local administration units involved. It was proposed that a number of nearby local administration be combined to form one AHB. The size of an AHB could be one district through the aggregation of local administration units within the boundary of a district or it could be larger than one district through a combination of a number of local administration units from a few districts. The main reason is to allow the economy of scale as well as the possibility of having a combination of health facilities of various levels within one local administration, thus allowing better referral and sharing of service responsibility among various levels of health providers. (Figure 14.2)

Figure 14.2 The proposed new decentralized health system.



The AHB will consist of a governing board and a secretariat office. Board membership will consist mainly of representatives from the concerned local administration units. There are representatives from MoPH. There are also members appointed from among the civic groups and those with expertise and experiences in health and planning and management. Such a unit will need to have legal status in order to make decisions on behalf of the local administration concerned. It is important not to create a board with only advisory functions as it will be very difficult to make decisions with the view for the whole AHB as most decisions will then have to be made by individual local administration based on its own boundary of jurisdiction.

The second important feature of the new decentralized health system is the combination of health facilities at various levels within the same AHB to form a single unit of service providers. Such health services facilities aggregation will require the new type of management structure and should not follow the present hierarchy of command within the MoPH. In this case the district hospitals and health centers within the same aggregation should have a role in the overall planning and management of the new organization. Thus it allows the possibility of sharing resources to achieve the set objectives while allowing day to day decisions to be made closest to where the action is.

The various health facilities within the same AHB can also be managed as separate units and governed directly by the AHB but the AHB will need to put in place financial rules and regulations to ensure smooth interface between the various levels of health services. One example is the agreement to have a lower level of health facilities as a budget holding unit while keeping only a certain amount of budget for the higher level hospitals. Such an arrangement would put more management workload on the AHB that is presently still not well equipped at the early stage. On the other hand, the limited human resources in each AHB makes it difficult for each health facility to efficiently share human resources if they will have to work on a contractual basis. Having them managed as a single unit makes it more plausible to shift and share human resources as well as providing health services at the appropriate level.

The third feature is the allocation of a sectoral block grant from the central ministry to the AHB. Despite the increase in local revenue of up to 35 percent of total public revenue by the year 2006, it is **unreasonable to expect all budgets for health to be absorbed by the revenue generated locally**. On the other hand leaving such decisions entirely to the local authority may lead to under funding of the health services. It is therefore important for the central government to create a health sectoral block grant which will be a mix of the central government block grant with a matching grant from AHB.

The fourth feature is the relationship between the AHB and the service facilities. The service aggregation should not be required to follow all the rules and regulations of the local administration. They should be allocated financial resources based on the expected results and performances. They should then be entrusted to make their own decisions with regards to human resources requirement and management. This will be different from the conventional management practices used by the government where detailed staffing pattern as well as salary scale will have to be set and followed strictly, a practice that has proved to lead to inefficient use of human resources.

The model of hospital autonomy is another possible model to set the new relationship between the AHB and the service provider network. However the new setting will call for an aggregation or network of service providing units rather than a single hospital as a unit to become an autonomous entity. Some specialists proposed to create a network of service providing units consisting of facilities in the nearby location to form an autonomous body [31]. However the proposal was never seriously worked out in detail.

14.3.6 Comparison of the alternative models for decentralization

The two extreme models of decentralization can be compared against the following criteria and objectives: equity of health in a locality, efficient use of resources, service referral, good governance, degree of direct control by the local administration, possible responsiveness to the local needs, resistance by the existing health personnel, degree of smooth transition from the present system.

Table 14.2 Comparing the three models using certain criteria.

	Direct Transfer Model 1	Aggregated Model (AHB) 2	Semi-status quo Model 3
1. Equity	Low	High	Medium
2. Efficiency	Low	High	Medium
3. Service referral	Poor	Better	Good
4. Good governance	Questionable	Possibly better	Questionable
5. Direct control by LA	High	Medium	Low
6. Responsiveness	High	Medium	Low
7. Resistance	High	Medium	Low
8. Smooth transition	Low	Medium	High

a. Equity.

It is likely that the direct transfer of health facilities will lead to a poorly coordinated model with difficulties of shifting needed for resources to the poorer areas. It depends on the ability of each locality to deliver services or develop health programs and projects.

b. Efficiency.

Direct transfer makes it difficult to share resources. The aggregated model creates a larger pool of resources, especially human resources but the more important feature is the aggregation of various health facilities into one management unit. In the semi-status quo model the relationship of each level of health facilities is not expected to change and thus may not lead to better sharing of human resources. The financial resources will be further fragmented as they will be put under direct allocation by each local administration.

c. Service referral.

The semi-status quo system will have the same type of relationship between various levels of health services that have been quite inadequate because of the separation of the management of each level. The direct transfer will compound this relationship and create barriers between various levels of health facilities due to a sense of different ownership. The aggregated model proposed to tackle this by creating a new aggregated service provider unit that combines all levels of health facilities under one management.

d. Good governance.

The local administration units have the least experience in management and thus possess the lowest level of good governance, not to mention the concern over local politics. The joint management body may help to bring better governance. This is better than the present system where the central ministry plays the crucial role in the governance of the local health system.

e. Direct control by local administration.

The direct transfer model will allow each local administration unit a better control over the health facilities that presumably will lead to better response to local needs. The aggregated model also allows direct control by the local administration, but the aggregated nature of the mechanism will create certain barriers to certain local administrations as it is impossible for all local units to directly take part in the decision making process. The semi-status quo model does not allow direct control by the local administration. Although they may be invited to form local committees,

most of these committees are advisory in nature and lack administrative power.

f. Responsiveness to the local needs.

The semi-status quo system will create the split of loyalty among the providers as they receive their salary from the central ministry while receiving their operating budget from the local administration. Consequently, the former will command better responsiveness from the health personnel as it controls the salaries.

g. Resistance from health personnel.

Direct transfer to the local administration created the highest resistance because of many skepticisms about the lack of transparency and the unsettled administration system. The aggregated model may slightly improve this with the promise to give autonomy to the service providing units. However, the health personnel will have the least resistance if their employment status remains the same in the semi-status quo model.

14.3.7 Health financing within the new decentralized system

There are two major sources of funds for the AHB within the proposed decentralized health system, the centrally allocated sectoral block grant and the locally allocated budget. It was expected that the two sources combined should not be lower than the level spent by the central government within each locality. The funds available could be allocated to various groups working to improve the health of the people in the locality. It was proposed that a certain amount of budget be allocated to each local administration unit to carry out projects or activities that could be implemented locally to improve people's health. The remaining amount will then be allocated to the aggregated health facilities to provide services based on the agreed results or outputs.

With the movement towards universal coverage, the AHB can also serve as a decentralized mechanism to implement the new scheme. The role of the AHB will vary depending on the design of the new scheme. The minimal role of the AHB is to ensure the collection of assessed contribution of various population groups based on the formula used. Part of the contribution may be kept and used by the AHB to ensure access to health services for each population within the locality. The extent of funds to be expended by the AHB will depend on the payment methods set by the central authority. The AHB may have to decide how many different packages will be made available to the population within each area and then collect the added contribution according to the assessed contribution determined by the central authority.

14.4 Implementing the decentralization

No matter what models to choose, the new decentralized health system cannot be formed over night. There is a need for intensive efforts in capacity building and establishing new work system under the new relationship between the local administration units, the central ministry and the health service providers, which will be transferred over to the local administration. Another important strategy is to have a period of research and development to work out the proper working model and detailed work system as well as capacity development needs before proceeding to a much wider expansion of the decentralized model. The next strategy is to develop a close monitoring system to ensure that the new decentralized system will lead to equity, efficiency, accountability and quality.

14.4.1 The needs for R and D on the new decentralized system

With the limited time frame before the operation plan is finalized and approved, one crucial strategy is to place the first phase of the operational plan in the period of intensive study on decentralization. During the period only a selected number of provinces including the local administration units will be reorganizing and developing various aspects of the new decentralized health system. Many crucial issues will need to be addressed through research and development activities. Some of the more detailed issues include:

a. **The Area Health Board:** what are its composition and mandates? Is there a need for a legal framework to formally establish the AHB or can it be a functional part of an existing local administration unit, especially the Provincial Administration Organization (PAO)? How can they best function to plan and allocate resources as well as monitor and evaluate the outcome of their decision making? What types of human resources and information system will be needed? Is there a need for additional manpower to carry out the crucial functions or can these be transferred from the provincial and district health office? If there is a need for transfer, how can the personnel management system be tackled?

b. **The budget and financial aspect:** in the long run, what would be the implication on the locally available budget versus the central budget from the ministry to the local administration, if the present level of central government spending will have to be maintained as the minimal requirement after decentralization? What should be the procedures and processes required be to ensure that the budget is made available to the local administration?

   Another crucial issue is how much locally available health budget should be allocated to each local administration (TAO and municipality) and be used by them directly to implement health development activities and projects. Yet another issue is how should the budget be allocated to service providers and ensure that they will be motivated to provide a proper mix of preventive, promotive and curative services.

c. **The new provincial and district health offices:** despite the presence of the AHB, the provincial and district health offices still need to carry out the functions of the central ministry. However, their roles will be different. What should the limits of their new roles be in order to ensure equity, efficiency and quality?

Although these are questions that administrators should bear in mind, it would be impossible to answer them immediately during the one-year planning period.

14.4.2 The need for capacity building

With the period for intensive R and D, many of the new roles and work system will be properly developed and identified. The needs for further capacity building will be clearer during the period and systematic efforts could then be made to further improve the capacity needed among the various groups in the new decentralized system. Some of the needs for new capacity and competencies can be seen as follows:

a. The local administration units (including the AHB's)

The primary target for development is the local administration unit. Although municipalities have existed for more than five decades, they are still relatively inexperienced with regards to health development [32]. Only a few municipalities have their own health service facilities and have been actively planning and allocating budget for health. Almost all Tambon Administration Offices have no experiences with health development activities of any kind. Even during the research and development project carried out by the Office of Civil Service Commission, the roles of the TAO's were limited to drawing up plans as suggested by the health personnel and making financial contributions to the needed projects. The local administration needs to monitor and evaluate the achievement expected from various implementing units. These roles will be carried out at various levels in the local administration units involved. One is to perform those functions as members of the board in the AHB. Another is to carry out those functions as the management officers in the AHB office. Still another is the role of each local administration unit (TAO, municipality) in overseeing the health development efforts in each locality.

b. The service providers

The service providers in the new decentralized health system are expected to work in a multi-level network with a relatively larger size of organization and the new setting for joint decision making within the organization. Another aspect that will be required from the service providers is the ability to be more responsive to the needs of the local communities and to carry out a mix of health services aimed at health promotion, diseases prevention and curative services.

C. The provincial and district health officers

At present the two offices are mainly involved in budget allocation and logistics supports to the various providers. In the new decentralized system these functions are going to be taken over by the AHB and the secretariat office of the AHB. The provincial and health offices will work to ensure the compliance with the national policies and the technical standard requirement, the roles that have not been well carried out at present. The officers in the two offices will have to be good communicators and advocators, as they are not going to have the direct command over either the local administration or the service providers. They will also have to be ready to provide consultancy services to various local administration under their jurisdiction. Managing and making use of information is one of the most crucial factors for running this kind of operation.

14.4.3 The needs for close monitoring and support at the central level

Despite the first few years for research and development in selected provinces, there is a need for intensive support and monitoring as well as continuous learning for further improvement for the first 10 years of the decentralization effort. The process will involve various groups of people and decision-makers but the MoPH will have to be responsible for the ultimate outcome. The result from the assessment can be used for further improving the relationship between the central and local administration and the local administration and the service providers. Coordination between the concerned ministries can help the local administration and the AHB to improve their decision making and resource allocation. It can point out the needs for changes in the budgetary processes and practices of the central government as well as the local administration.

14.5 Conclusion

Public sector reform is a very demanding procedure. This reform movement will, also affect the development of the future health insurance system, with or without the feature of universal coverage.

The new decentralized system can pose more difficulties or help to facilitate the future development of the health insurance. With the fragmented approach, the organization of health financing mechanism at the local level may need a different level of management mechanism. With the establishment of the AHB's, they may be expected to serve some of the crucial functions for local management of the collective financing system. Depending again on overall design of the collective health financing system to be developed, the local mechanism for financial management may have varying degrees of significance and contribution to the future health insurance implementation. It is argued here that the future collective financing system should be developed based on local mechanisms and subsystems within a larger framework of a unified national system, with or without sub-population grouping. A single national system with no involvement of local administration and possibility of local variation under a national framework may be quite rigid and difficult to manage. Or it can be expected to affect only the minimal level of health benefits for the population.

The budgetary allocation from the central level along with the contribution from the local administration will provide a ground for further assessment and collection of financial contribution from various population groups in each locality. Even without further expansion of population coverage, the system with AHB will be able to better cope with the needs of the various population groups in each locality, especially the disadvantaged group. However, this will require the flexibility given to the local administration with regards to financial decisions and management of the budget allocated for various population in each locality.

The new decentralized system with the requirement for the new relationship between the local administration and the service providers along with the aggregated service network will also put forward new types of providers who will be dealing with the future health insurance system. The needs for performance-based relationship between the local administration and the providers will also help to better prepare the providers for the prepayment system as well as for laying down the internal system for accountability. The attempt to develop better primary care providers in the network will help to lay a better foundation for a more responsive health provider network.

On the whole the new decentralized health system will have a significant impact on the design and development of the future collective health financing system. With the goal of developing a concerted system of governance, service providing and health financing, these various development efforts cannot be left to evolve on its own. There is a need for close coordination and convergence of concepts and system design in order to avoid unnecessary waste of resources resulting from conflicting concepts and misunderstanding within each group working on the various areas of system reform.

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CHAPTER 15

Primary Care Reform

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15.1 Current situation of primary care in Thailand

To analyze the health situation in Thailand, an integrated research and survey is needed since health incorporates individual and environmental factors of all dimensions.

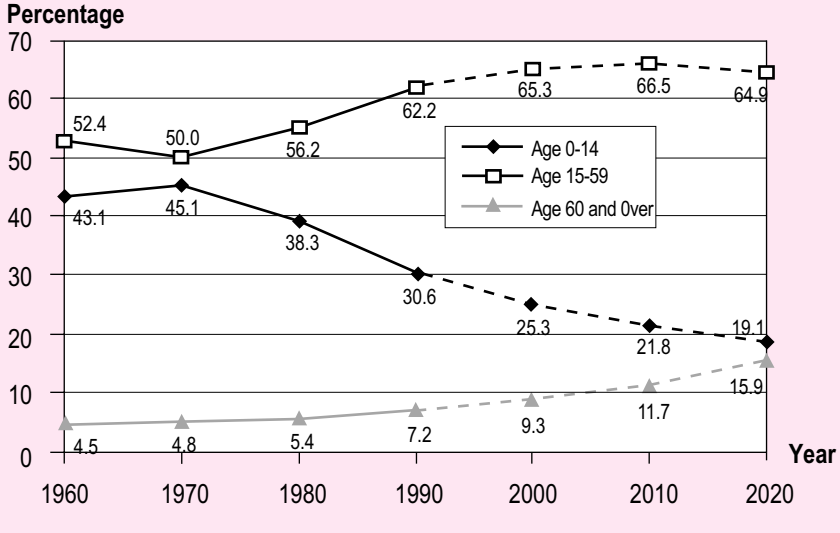
Primary care, which is a sub-system in the health care system, has to be changed to cope with health problems caused by environmental, economic, political, socio-cultural, and individual factors.

The synthesis of these health factors directly influence the quality of primary care services.

15.1.1 Population, family and community

The population of children from infancy to 14 years is declining while those of adults and the elderly are rising steadily. As a result, the pattern of chronic and behavioral illnesses have changed. The family structure is gradually changing from

Figure 15.1 Proportion of population by major age group, 1960-2020.



Source: Wibulpolprasert S, 2000 [1].

extended families to nuclear or single families. The family size has dropped from 5.6 members in 1960 to 4.4 members in 1990. By 2015 it is estimated that the average number of family members will decline to 3.4, resulting in a lower level of assistance and care among family members. Figure 15.1 presently there is an urgent need to improve the health care system for the elderly.

15.1.2 Important health problems

Within the past three decades, vaccine-preventable diseases, communicable disease and malnutrition have declined while non-communicable illnesses such as cancer, heart disease and accident-caused illnesses are on the rise. Some of the problems are preventable while others can be improved by restructuring primary care to make it more efficient and cost effective.

15.1.3 Economic change

During the economic boom 1988-1997, the health budget's proportion had increased from 4.2 percent in relation to the national budget in 1987 to 7.7 percent in 1998. The government budget was spent on a number of investment activities. During this time, health expenditures rose with an annual growth of over 10 percent for several years (This exceeded the GDP growth rate). Unnecessary use of drugs and technology can be blamed for these excessive expenses. More private hospitals were constructed resulting in a 250 percent oversupply of beds in private hospitals. The proportion of private doctors increased from 11.4 percent in 1987 to 19.6 percent in 1997 [1]. Investors of private hospitals thought that the demand was far greater than it actually was.

During 1997-1999, several studies showed that self-prescribed medication had increased [2, 3].

The mid 1997 economic crisis caused both negative and positive impacts on the health care system. While the government reduced the budget for health care, all the health institutions re-adjusted their own budgets, rationalizing and prioritizing all projects. Health promotion and disease prevention became an important health policy.

Even with the money shortage, public hospitals in the Ministry of Public Health received more budget for the poor. The Ministry of Public Health launched the "Good Health at Low Cost" policy and saved 24.67 percent of its budget. This was a good opportunity to reform the health system and upgrade primary care.

15.1.4 Health services delivery

(1) Primary health care

Primary health Care refers to *essential health care based on practical, scientifically sound and socially acceptable methods and technology available to individuals and families in the community at a cost that the community and country can afford*. Primary health care services include those organized by communities to provide services related to health promotion, disease prevention, curative care and rehabilitation, using medical and health technology that is appropriate to community needs. Community members who voluntarily work for the benefit of their villagers are considered primary care workers.

(2) Primary care services

(2.1) Definition

Primary Care includes medical and health services which comprise personnel e.g. doctors, nurses, midwives etc. The services include health promotion, disease prevention, curative care and rehabilitation. Primary care is the first stage of care whereby the providers must have some medical knowledge as well as the ability to create a good relationship with the people and community. Good primary care comprises three basic components - continuity, integrated and holistic care [a].

The American Academy of Family Physicians (AAFP) and American Board of Family Practice (ABFP) defines primary care as follows:

".....a form of medical delivery which emphasizes first contact care and ongoing responsibility for patient in both health maintenance and therapy of illness. It is personal care involving a unique interaction and communication between the patient and the physician. It is comprehensive in scope, and includes the overall condition of the care of the patient's health problems, be they biological, behavioral or social. The appropriate use of consultants and community resources is an important part of effective primary care" (4).

The primary care service in Thailand is a sub-system of health care. The Thai health care system comprises primary, secondary and tertiary care. Primary care is provided at public health centers and private clinics. Although the function of public hospitals is to provide secondary and tertiary care, many patients go there for primary care because in the past there are very few health centers in the rural areas.

Primary care providers include physicians, nurses, and public health officers including midwives and sanitarian working in both public and private facilities.

(2.1.1) Public health care facilities

There are public health facilities in every level of care from health center to community (district) hospital, regional hospital/general hospital, hospital under the Ministry of Public Health or universities and state enterprises and urban health centers under municipalities.

Rural and urban health centers that provide integrated services including curative care, health promotion disease prevention and rehabilitation. Rural health centers and community (district) hospitals are responsible for the population in its catchment area. The district hospital is located in its own catchment area to provide primary and secondary care for people in the district. In the urban areas, there are no definite catchment areas.

(2.1.2) Private health care facilities

(a) Private clinic:

Data from the MoPH found that the number of all types of private clinics are 11,441 (1997). The majority of private clinics were established to provide services on a part-time basis (83.7 percent). 80.2 percent of private clinics provide general services. However, more than half of the providers in

[a] **Comprehensive care** involves all dimensions of the individual patient including his physiological, cultural and social components.

Continuous care ensures that there are regular follow-ups. Care must be provided continuously until the patient is well again.

Integrated care refers to promotive and preventive care that is provided alongside curative care at the same place in order to maintain, restore and improve the health of individuals and the community.

these clinics are specialists [5].

Private clinics have no catchment area and most are located in urban and commercial areas.

(b) Private hospital:

Private hospitals provide primary, secondary and tertiary care although curative care is emphasized. Recently, however, private providers began to provide health-promoting services targeting particular groups of patients who have the ability to pay e.g. chronic patients, and the elderly.

(c) Other services:

Traditional medicine cannot be excluded from the health system because Thai people still utilize this kind of health care. There are no exact figures of how many people use traditional herbal medicines but information from Thai FDA shows that herbal medicines (locally produced and imported) have risen in popularity and those registered by the FDA increased from 253 million baht in 1987 to 662 million baht in 1999 [6].

Folk healers, traditional medicines and traditional birth attendance are forms of primary care with a holistic, oriental approach. Although some of the practices and the prescribed herbal medicines are illegal, they are acknowledged by the people.

(2.2) Registration system

There is a specific registration system particular groups, namely the low-income groups and people who need social support (about 45 percent of the population) voluntary health card members (14 percent of population), and insurers under the social security scheme (8.47 percent of the population).

(3) Role of community in primary care

In the past the community did not participate in health services, except self-care or self-prescribed medication. However, under the Decentralization Act, the local government and community are responsible for the policy making, the health service plans and the monitoring of health facilities.

(4) Linkage with higher level of care

Some primary care providers (both public and private) are in the network for providing primary care for workers in the social security scheme. If they cannot handle the patients, they will refer the patients to the contracted hospital. This is one example of primary care that is linked to higher levels of care. The referral system has been established in public facilities under the MoPH for a certain period of time. However, there are some problems of bypassing the patients to higher-level facilities. Although the country has a high coverage of health insurance, there are approximately 12-13 million people (21.67 percent of the population) who do not have any health insurance.

16.1.5 Problems in Thai primary care system

The major problems of Thai primary care are as follows:

(1) Overlapping of primary care activities between hospital and health centers.

Because there is no health center situated in the central sub-district (the area where the MoPH hospital is located)., it is the policy of the MoPH to use the district hospital as the First Line Health Service (FLHS)[b] for the population near the district hospital and as the first referral center serving patients referred from health centers. In the past there were few health centers in the rural areas and the district hospital had to provide primary care to patients living outside the sub-district. Even though there are enough health centers today, the hospital still provides primary care to people living in closeby areas as well as to those living in other areas.

As a result the following problems occur:

(1.1) Bypassing health centers

Many studies revealed that more than 50 percent of patients seen at hospitals could be treated at primary care centers [7, 8, 9].

Many patients come to the hospital for primary care because they think that the hospital is more efficient than the health center. The reason is related to the impression and experiences of the patients at health centers in the past [10]. (Table 15.1).

Table 15.1 The reasons of patients bypassing health center to Nakhonthai District Hospital, 10 July-11 August 1995.

Reason	Number	Percent
1. DH is better than HC	635	60
2. Used to utilize HC and did not get better (in the past)	96	9
3. Does not feel better by HC treatment (this episode)	151	14
4. Check up for medical certificate	46	4
5. No staff at HC	31	3
6. Exceptional area[c]	63	6
7. Others	42	4
Total	1064	100

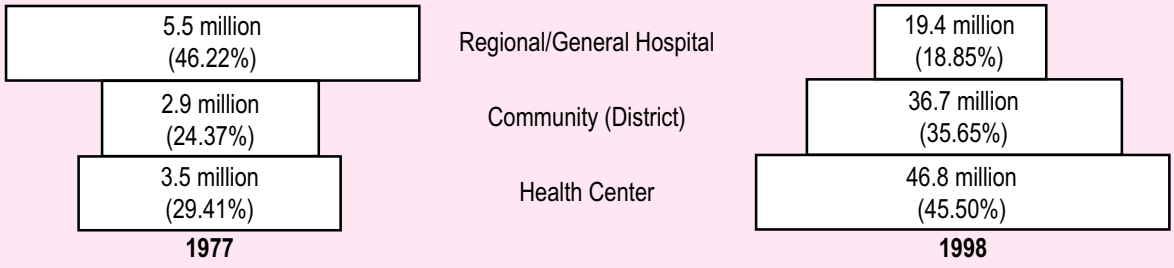
Source: Taearak P, 1996 [10].

Although OPD visits at health centers increased from 3.5 million visits or 29.4 percent out of all OPD visits in 1977 to 46.8 million (46.1 percent) in 1998, many patients still go to the hospital for simple illnesses. OPD visits at district hospitals increased from 2.9 million visits (24.4 percent) in 1977 to 36.7 million visits (33.9 percent) in 1998 (Figure 15.2).

b First Line Health Service means health service facility which provide primary care e.g. health center under the MoPH or private clinics

c Some people have rights to access to health facility free of charge. Even though they live in catchment area of HC responsibility but nearby Nakornthai DH, they have been allowed to go directly to the DH for curative care without paying money whilst others have to pay if they bypass HC.

Figure 15.2 Number and proportion of outpatients at various levels of health facilities, 1977 and 1998.



Source: Wibulpolprasert S, 2000 [1].

(1.2) Inefficient and overcrowded hospitals

Public and private hospitals which provide a wide range of care are often inefficient and overcrowded.

This situation prevents the hospitals from providing good care to the patients. The physicians have to deal with many patients within a very limited time and this obstructs comprehensiveness and continuity of care [8]. Since the hospitals provide so much primary care, its specific role as first referral center is hampered.

Primary and secondary care overlaps in all levels of health facilities in Thailand. Instead of using a holistic approach, many primary care centers are disease oriented. Today few health services can provide good primary care to people i.e. some urban health centers in Ayuthaya province and some family medicine units Hospitals are not the place for holistic and integrated care because they are too large.

(2) Low quality of services

Most primary care providers do not have adequate social skills and tend to provide disease oriented rather than an integrated, holistic and continuous care. There are too few urban health centers under the municipality to effectively cope with the health problems. There is also a shortage of qualified staff.

(3) Shortage of physicians and specialists

Although more medical students graduate each year, there is still a shortage of physicians. In 1998 there were 19,500 physicians (1 physician to 3,136 persons). The shortage of doctors is very critical in the rural areas, but has improved after the government decided to increase the number of doctors (1992). Consequently since 1998 there has been an increased number of rural doctors. During the economic crisis, many doctors shifted from private to public the hospitals. Overall, the situation will be much less critical in the next two decades. About 50 percent of doctors are clustered in Bangkok. The number of medical specialists is rapidly increasing. In 1999, medical specialists made up 55.39 percent of doctors (Figure 15.3) but unofficially it is estimated that as high as 69.4 percent of doctors are practicing as specialists and the proportion of family doctors is extremely low and has been on a continuous decline since 1979 (Figure 15.4).

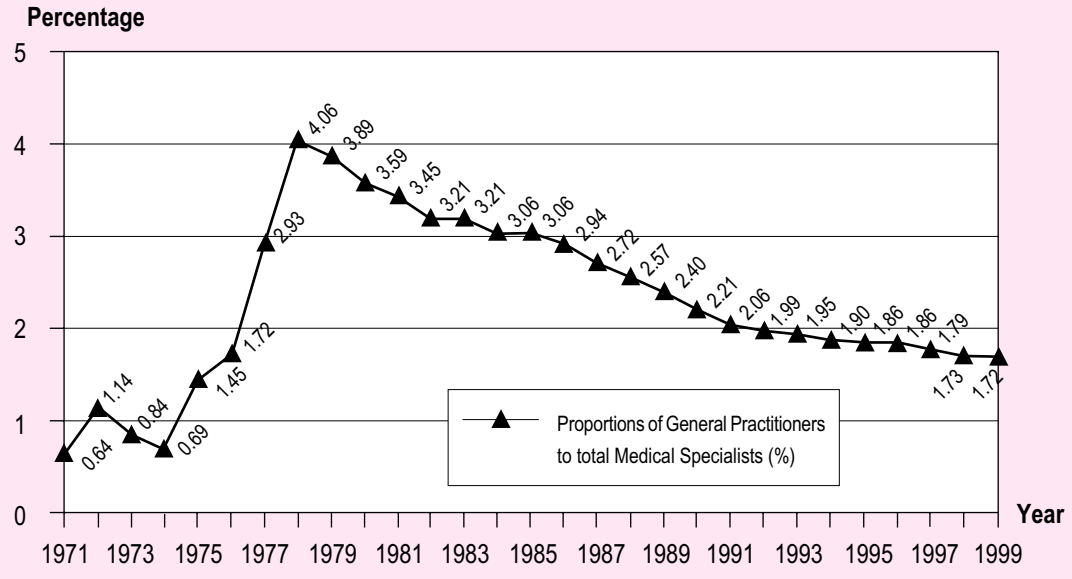
Primary care development in Thailand is inefficient because it has always been defined as a very simple service with low technology. Primary care providers are generally thought of as incompetent when compared to secondary and tertiary care providers.

Specialists enjoy higher prestige, social respect and benefits than general practitioners who do not have any post graduate training. Most of the medical students now prefer to continue their studies as specialists — pediatricians, gynecologists, plastic surgeons etc.

In 1998, the ratio of dentists to the population ratio 1: 9,741; 1: 14,588 for pharmacists; 1:1,073 for nurses and 1: 1,282 for health center personnel.

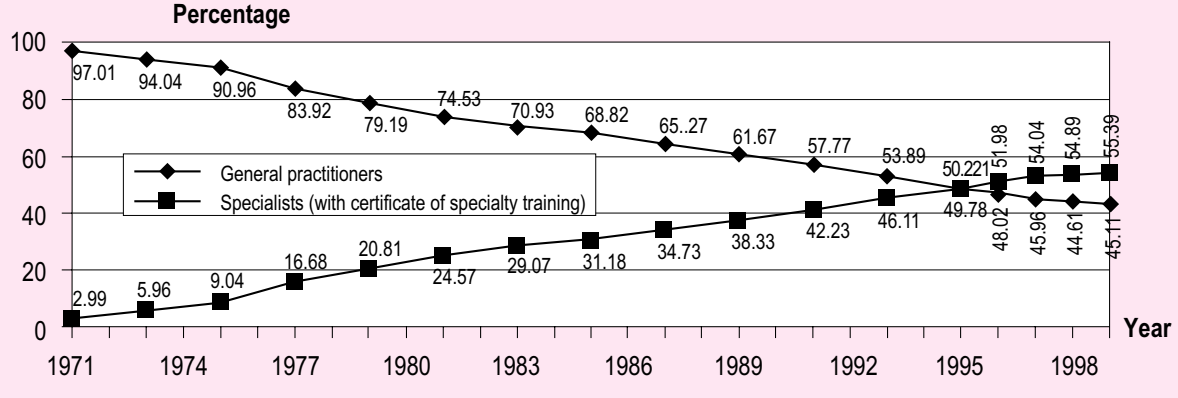
The target proportion of health personnel in 2017 is shown in Table 15.2 [11].

Figure 15.3 Proportion of medical specialists and general practitioners, 1971-1999.



Source: Thai Medical Council, 1999.

Figure 15.4 Proportion of general practitioners to total medical specialists, 1971-1999.



Source: Thai Medical Council, 1999.

Table 15.2 Ratio to population of health personnel in1997 and target in 2017.

Personnel	Ratio to population	
	1997	2017
Doctor	3,346	1,500
Dentist	10,961	5,000
Pharmacist	6,248	2,000
Nurse	843	500

15.2 Attempt to improve primary care

15.2.1 Development of primary care

(1) Traditional medicine

In the past, folk healers treated their patients on the basis of merit, good and evil and spirits. Traditional medicine in Thailand has a very long history of development. It has been a part of Thai culture up to the present day.

(2) Modern medicine

Since 1886, the first modern hospital was founded and modern medicine has since developed rapidly. The majority of people seek modern (western) medicine when they are ill. At present there is at least a health center in each sub-district and almost every district has a community hospital. Presently modern and traditional medicines compete with each other. To improve primary care, there needs to be an efficient mechanism to coordinate them.

(3) Establishment of primary health care

After the Alma-Ata-Declaration (1978), the Thai government launched the policy of health for all by the year 2000. Primary health care centers were established. Village Health Volunteers (VHVs) and Village Health Communicators (VHCs) were trained by health personnel.

Village health volunteers provide primary care, focusing on public health programs. Their activities include weighing children under the age of five years in the nutritional program and conducting health education in their villages. Their roles in primary care have been gradually increased to health check ups, screening for diabetes as well as some simple diseases such as common cold or diarrhea.

VHV members act as community leaders in primary health care not as health professionals. However, some community leaders have proposed to include VHV as primary care providers in the community [12].

15.2.2 Primary care reform

Important events have influenced the development of primary care.

(1) Decade of community hospital development

During 1977-1986, rural health facilities were extended to the district level in the 4th-5th National Five Year Plan. The government declared that every district must have at least one community hospital with at least one doctor and at least one health center in the sub-district. This led to rapid increase of health resources in both primary and secondary care.

(2) Decade of health center development

Since 1992, **"the decade of health center development"** aimed to increase the quantity and develop the quality of personnel and equipment. The government laid aside a large budget for this on-going project. During this period, primary care took a giant step and greatly improving the people's accessibility to health care (Figure 15.2).

(3) Thai-EU collaboration in primary care development project

The Thai-EU collaboration (996) proposed a "Health Policy and Plan" package to the government in order to improve equity, efficiency, quality and social accountability of the present health sector system. After several field models were developed, one primary care development model was designed for all provinces [13].

A small-scale primary care development project in Ayutthaya province called the Ayutthaya project aimed to strengthen the primary care system. The project involved both urban and rural areas.

(3.1) Urban

1) Private clinics are included as primary care providers aimed at strengthening health promotion and disease prevention.

2) Referral letters and linkage between public hospitals and private clinics were encouraged but the attempt was ignored by private physicians. Consequently public urban health centers were established as primary care units.

(3.2) Rural

1) The health center's service was enhanced through supervision by physicians and nurses from community hospitals.

2) System reform and re-orientation of health center activities included providing efficient information and referral systems as well as home care.

(4) Health system reform

National Health System Reform (1999) refers to any process that aims to improve the physical, mental, social, and spiritual well being of the people through equitable, efficient and high quality health care systems. The National Health Act, which will probably be issued within three years, is an important tool for health system reform. To be included in the national health constitution, it will build up systems, structures and conditions for new health systems. One of the sub-systems that will be reformed is primary care.

(5) Health decentralization

In the past decade, government and non-government organizations attempted to decentralize authority and responsibility to local governments. The recommendations specified principles of local autonomy including the election of local representatives, among other aspects of local governance. Subsequently the National Decentralization Act was issued and became effective in November 1999.

Under this act, the government transferred all functions of public services (health centers, community, general and regional hospitals) to the Local Administrative Organization (LAO) within ten years (2000 to 2010).

Important issues of decentralization include the role of related organizations

and institutions, namely LAO and the central and regional administrative bodies. This also means re-adjusting the attitudes of health personnel and the local people.

(6) Other movements

Other attempts to improve primary care are as follows:

1. Movement to advocate policy makers, health care providers and the general public to support the primary care policy.
2. The plan to have family doctors provide integrated and holistic care was incorporated in the Eighth National Health Development Plan. The MoPH has organized several short training courses for family doctors and other health personnel.
3. The concept of "General Practice" was to be replaced by "Family Practice" which would be considered an academic discipline.
4. The Health Systems Research Institute (HSRI) advocates the concept of hospital accreditation to ensure a high standard of health care.
5. The Thai Medical Council cooperated with other agencies to promote the concept of the family doctor as well as primary care since Dec. 9th, 1999 [14].
6. The universities adjusted their curricula for training in family medicine.
7. Movement to reform the system of primary care and primary care providers e.g. reform the payment mechanism, integrate primary care as part of the community so that it will be socially recognized.

Strengthening of primary care will definitely lead to improvement but at present there is still no comprehensive plan. Hopefully, mechanisms to improve primary care will be written in the National Health Act within the next three years.

15.3 Future plan

15.3.1 Recommendation of primary care reform

(1) Desirable primary care system

It is important for all stakeholders to have a common agenda on health care system development. The desirable primary care system for Thai society should :

1. be integrated and holistic, taking into consideration the psycho-socio-cultural aspect, and its application to the community's way of life.
2. have qualities that people trust and can accept. For instance, with its many networks and alternatives, it should be convenient for the people. The system should be connected to the self-care system, the community, higher levels of care, emergency care, and other social services.
3. have the "Basic Essential Package" and efficient financial management.

(2) General principles to support primary care

(2.1) Re-orientation of attitudes in health

It should promote new attitudes whereby society looks at health as a total physical, psycho-social and spiritual concept. Consequently health should be integrated into other systems including education, culture, environment, economy and technology, etc.

The primary care provider or family doctor is not just a health care-taker but is responsible for providing comprehensive health care to individuals seeking medical care, and making referrals to other health personnel when necessary. He/she cares for the individual in context to the family, and the family in context to the community, taking into account the cultural, socio-economic and psychological background. In addition, he/she takes personal responsibility in providing comprehensive and continuing care for patients [15].

(2.2) Promoting individual, family and community self care

The concept of health promotion and self care should be incorporated into the National Health Development Plan. If people can maintain good health and take care of themselves when they have mild illnesses such as common colds, myalgia, stress etc., the country will save a large amount of money.

(2.3) Rationalization of health care facilities

Re-assessing the role of the hospital by reducing primary care and strengthening the referral system will make the system more efficient. Consequently the doctor will have more time for complicated cases.

The role of first line health service (FLHS) should be undertaken at health centers or private clinics. Out patient services at health centers and clinics are more cost-effectiveness than at hospitals.

(3) Essential conditions for primary care development

(3.1) Universal coverage health insurance policy

The universal coverage health insurance will increase accessibility and equity of people to health care especially through primary care units such as health centers and private clinics. In this way, the referral system will be strengthened through the financial mechanism, ensuring the continuity of care during sickness and transferring the patient to other levels of care if needed. The government should find a way to incorporate traditional medicine into the National Health Insurance Scheme.

(3.2) Considering conditions in the health insurance system

1. Each system should cover all services including health promotion, disease prevention, curative care and rehabilitation. Patients should have “Selective Registration” with health care providers near their homes or offices.
2. The payment mechanism for primary, curative, preventive and rehabilitative care is capitation (a fee of so much per head).
3. The payment mechanism should promote primary care and fairly allocate health resources - for example, the payment rate should be roughly the same or better than payment for the medical specialist provider. Payment rates should increase in remote areas.
4. Introduce co-payment for curative service in order to avoid over utilization.

   Co-payment should be introduced to the system at all levels of care in order to make the people rationalize the utilization of health care services. Co-payment should be affordable.

(3.3) Essential resources development for primary care

(a) Knowledge

Research and development (R&D) in primary care should be promoted under a health research institute or similar organizations. Development and research in traditional medicine should also be seriously undertaken in order to revive local wisdom as another major source of primary care. Thai massage, popular among locals and foreigners, is a good example of local wisdom and can be used as self-care and primary care. It can also be integrated in hospitals. Traditional healing herbs can be exported to generate income for the country. By taking trained traditional masseurs abroad, Thai massage can be promoted worldwide.

(b) Health manpower

1. The ratio of the primary care physician (family doctor) to the population ratio is significantly associated with lower infant mortality rates, lower neonatal mortality rates and higher life expectancy. The unbalanced ratio of specialists to the population is significantly correlated with higher cancer death rates and a lower life expectancy [16].

2. Primary care providers should work as a health team that is multidisciplinary i.e. comprising doctors, nurses, health officers, professionals from other fields such as social workers and health volunteers.

3. Manpower development

3.1 Medical and health education in every educational institute should focus on primary care.

3.2 There should be continuous education and accreditation for primary care providers. .

3.3 Folk healers should be integrated into the system and considered primary care providers.

(c) Development of drug and medical equipment procurement and administration

The standard drug list should be introduced to the system in order to reduce unnecessary consumption of drugs. The list should contain only essential drugs and the number of items might vary according to different levels of care. The collective system of drug procurement will reduce drug costs and make system more efficient.

(d) Location

Primary care facilities should be situated near community households and working locations. The staff should have good relationships with the community. While providers can come from either the public or private sectors, it is highly recommended that they should be coordinated. This is an important step in utilizing all facilities in the community. Health care providers both public and private should join the social security scheme. It will benefit the people If all primary care providers are under the same system of national insurance. Qualified primary care providers should be distributed to the rural areas.

(3.4) Organizational mechanisms

(a) National level

The organizational mechanism included in National Health Council (e.g. the primary care system development committee) comprises policy and pri-

mary care standards. Health insurance, a registration system for primary care providers, personal health information files, health care delivery systems, monitoring and evaluation systems are regularly evaluated and considered.

(b) Local level

The participation of the people and community should be strengthened and local mechanisms for monitoring and control should be set up.

(c) Mechanism for quality improvement

The mechanism for quality improvement such as “hospital accreditation” or other quality assurance processes should be considered and applied to primary care improvement and quality assurance. An organization should be responsible for this. The minimum standard of quality care should be guaranteed to the patient.

Recommendations for Thai primary care development are shown in Figure 15.5.

15.4 Conclusion

Primary care reform is difficult because it is multidisciplinary and must be coordinated with other components of the health care system as well as the various stakeholders. To achieve goals, a comprehensive plan is needed so that all factors can be reformed at the same time and in the same direction. The National Health Act, which includes a part of primary care, will be the main mechanism for the reform of the health care system.

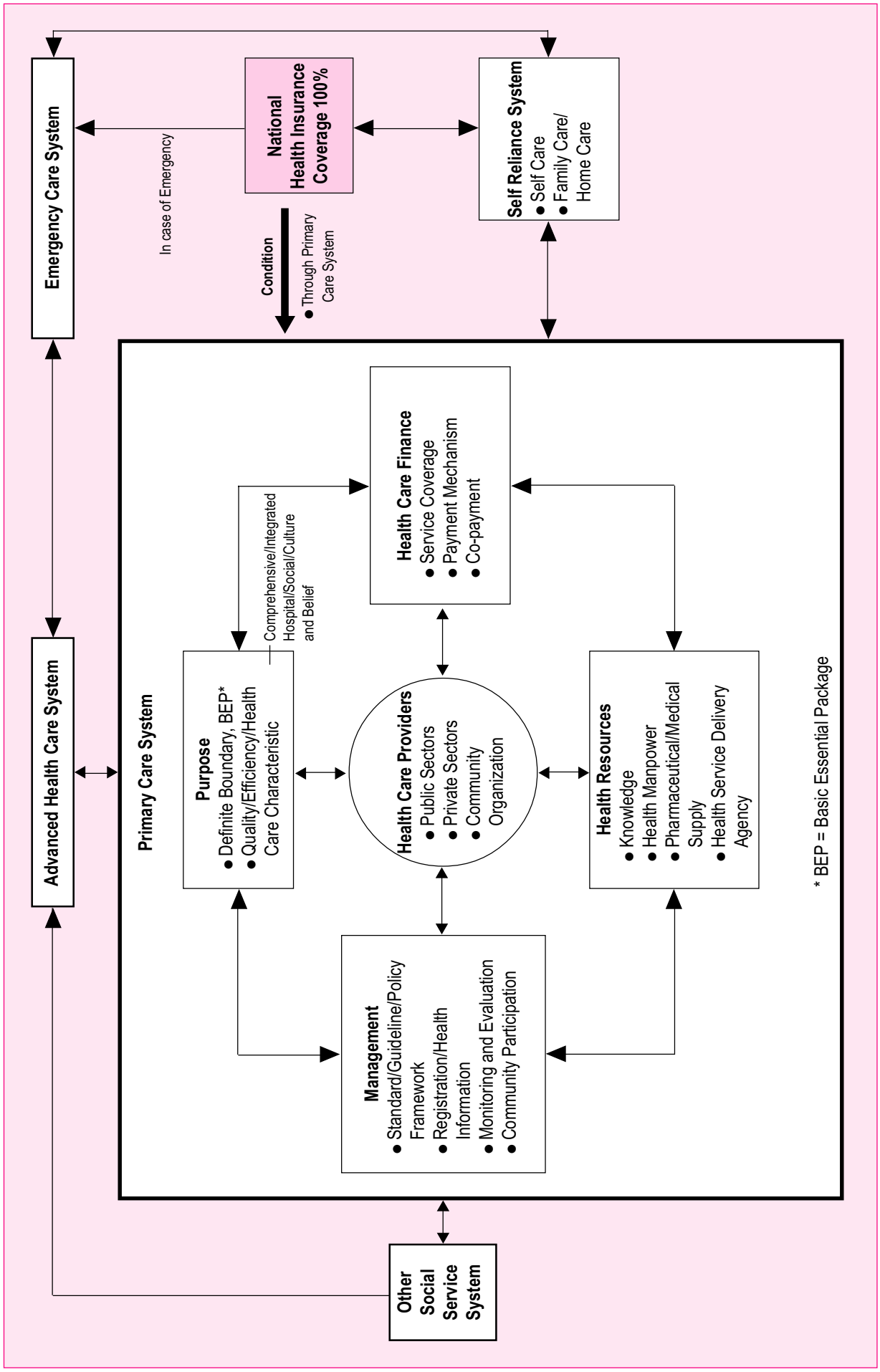


Figure 15.5 Diagram showing the linkage between primary care system and other health care system.

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CHAPTER 16

Implementing Universal Health Insurance

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16.1 Introduction

In the last few years of the twentieth century, there was a quiet movement, coming mostly from the medical community, but including many non-governmental organizations, pushing for overall reform in the health sector. The inspiration for this reform movement was a parallel movement in educational reform. Both the health and educational reforms were also motivated by clauses in the 1997 Constitution making it a *right* for Thais to have a twelve-year education and to have adequate health care. As a result of this movement, the then government set up a Health Care Reform Office in order to examine the various aspects of public health and health care in Thailand, with a view to propose legislation that would make it possible to realize the aspirations written into the constitution.

The objective of the health reform movement was far broader than the provision of universal health insurance coverage, covering as it did a whole gamut of issues, such as a proactive stance in providing good health for all, a reform of medical education, the provision of emergency services, and a myriad of other topics. On the issue of universal health insurance, a Working Committee was set up in September 2000, in order to study the feasibility and the design of such a system. Most of the authors of the present volume were on this committee, and it was chaired by this chapter's author.

While the Working Committee was deliberating on the issue, Thailand had a general election, and one of the main contestants in that election, the Thai Rak Thai Party, had as one of the main planks of its platform the provision of universal health insurance, under the slogan "Thirty baht to cure every disease". This campaign proved to be quite popular, and was at least one of the main factors explaining the party's overwhelming victory during the election, winning a historic majority in parliament.

With the advent of the new government, the task of the Working Committee acquired new urgency, the more so as it turned out that while the Thai Rak Thai party had a winning slogan, it did not formulate an implementation program to make that promise come true. Consequently, the committee felt that its report would be timely, and completed its work in March, two months after the new government came to power.

The Working Committee first examined the financial feasibility of a universal health insurance program and concluded that its cost is affordable, within the budget

constraint of the government. The analysis by which it arrived at this conclusion will be presented in the next section (16.2). It then went on to discuss the best design for such a program, and concluded with a set of recommendations for a transition to full program implementation, which it estimated would take at least three years. These issues will be discussed in the following section (16.3).

However, while the committee envisages a more leisurely pace of implementation, this has to be confronted with the political drive to show the results quickly, in keeping with the promise made to the electorate. The tension between the need to ensure proper preparations and the drive for quick results on the ground will be discussed in section 16.4.

16.2 Financial feasibility of the universal health insurance program

One of the first issues that the Working Committee tackled was the financial feasibility of the program. Its conclusion was fairly optimistic, that is, it appears to be possible for Thailand to have universal health insurance program, at about the quality standard enjoyed by employees in the private sector through the compulsory Social Insurance Program.

The Working Committee estimates the cost in the year 2001 to be approximately 100 billion baht, by applying the utilization rate of insurees in the Social Insurance program and its unit cost to the entire population, and by making adjustments for the different demographic profile of the general population from the generally young working age population in the Social Insurance program. An administration cost of 5 percent is then added. The figure of 100 billion baht must be compared against the total government budget of about 1 trillion baht, and against the actual expenditure on personal health care, which currently runs at the level of 76 billion baht. This last figure includes expenditures through the various insurance programs, such as the Social Insurance program, the Civil Service Medical Benefit Scheme (CSMBS), and two insurance schemes administered by the Ministry of Public Health, as well as direct subsidies to public hospitals. It can thus be seen that an extra 25 billion is needed to have a full universal health insurance coverage.

It must be noted that these figures imply that some of the fat in the existing in the system must be removed as well, most notably in the CSMBS program. Currently, it is a very poorly run program, based entirely on retrospective fee-for-service payment mechanism, and therefore generating a great deal of waste. It is expected that the cost of this program, currently placed 16 billion baht (for 7 million individuals), can be contained and even sharply curtailed, without substantially affecting some of the privileges enjoyed by this class of individuals.

Realizing that the cost increment of introducing universal health insurance is not substantial, the Working Committee therefore points out in its report, that its major impact lies in the re-routing of the funding for existing public medical programs. This funding currently comes from many different sources, the system of payment quite varied, and the impact quite unpredictable because of the total lack of transparency. Public health facilities engage extensively in cross-subsidies. Hospitals (and these are *public* hospitals) overcharge the government routinely and extensively when civil servants come for treatment, and use that money to provide services for other groups in the population. There is a certain degree of double-dipping, for example, the government would allocate funds to public hospitals for drugs, but when

civil servants or their dependents are prescribed these same drugs, the hospitals would claim for that amount again. This tangled funding is to be rationalized, so that costs can be made transparent. It is expected that with more transparent funding, hospitals in the for-profit sector can join in providing the services for the entire population, and not just with those belonging to the Social Insurance program, as is the case at present.

Currently, the government already has a program to extend the scope of its Social Insurance program to cover establishments with more than one employee, and also to extend the benefits to dependents of the workers in the program. An increase in the contribution rate will be needed and has been programed for the latter. The Working Committee therefore recommended, in the first stage, the merging of the Social Insurance program, CSMBS, and individual programs in state enterprises (currently not covered by the Social Insurance law) into one single fund, which would cover about a third of Thailand's population. This would be considered as a formal sector fund. It will be fully funded by contributions from its beneficiaries.

The insurance cost for the remaining population will be financed out of general taxation, and it is here that the extra 25 billion will go.

Over time, it is expected that the two funds, for the formal and informal sector, will be merged into one system for the whole country.

16.3 Proposed operation of the program

The operation of the program as envisaged by the Working Committee stresses the following elements:

- As much free choice for the beneficiaries as is compatible with the smooth functioning of the program;
- Inducing beneficiaries to use primary health care facilities before being referred to, if necessary to higher-level facilities;
- The involvement of the private for-profit hospitals in the program;
- A clear split between the purchaser and the provider;
- Above all, the move away from a policy of social assistance for the indigent, to making health care a matter of right; and,
- Following from the last point, uniformity of treatment (although add-on benefits can be obtained within limits, at the cost either of the beneficiaries or their employers).

The rationalization of the various insurance programs and funds to two as described is in line with the last point. Indeed, there is strong support in the Working Committee for a single health care fund for everyone in the system. However, it is felt that beneficiaries of the formal sector funds, particularly the Social Insurance program, have a strong sense of ownership of their program, and may construe a merger of their funds with those for the rest of the population as its dilution.

In any case, the managers of the two funds would allocate their resources to proposed Area Purchasing Boards (APB), of which there will be about twenty for the whole country. These boards will have as members local representatives, and will use those funds to contract with providers of health services. The Working Committee debated long and hard as to the appropriate payment mechanisms to be adopted. In the end, it concluded that the following set would provide the best arrangement in the context of Thailand.

- For *ambulatory care including health promotion and preventive care*, payment will be on a capitation basis.
- For *in-patient services*, payment will be on a DRGs (Diagnosis Related Groups) basis, with a global budget for each APB.
- For *drugs*, payment will be on actual cost basis, but limited to a price list issued by the government.

There are further details that are included on such things as emergency services, dental services, catastrophic illness and long-term care.

It is recognized that the proposed payment arrangements, in particular, the creation of the APBs would change the role of many public agencies, the Ministry of Public Health in particular. This ministry currently "owns" many public hospitals, in particular in the provinces. As these hospitals would now be contracting with the APBs, the Ministry would have to make a decision as to its future role. If it is to take over the role of fund allocator, it would have to divest itself of all the hospitals. Alternatively, it can stay away involvement with APBs, concentrating on its role as owners of hospitals.

The hospitals and other health facilities will, under the proposed regime, have their finances radically changed. From being subject to budgetary allocation, almost independently of their performance or output, they will now be subject to greater commercial discipline. There have been a number of proposals to set up a fund to bail out hospitals that may run into financial difficulties.

Probably the most important element to bring about these radical changes is a sophisticated information system. This is all the more necessary in Thailand, as a substantial portion of its workforce is highly mobile. The first priority therefore is a complete registration of the beneficiaries. It is a strange fact that many insurance scheme presently operating, in particular, CSMBS which incidentally is the largest one, does not have a complete roster of its beneficiaries, and does not have the faintest idea of how big a group it is serving. Once the somewhat complicated payment mechanism proposed above is to be implemented, the need for a good information system is obvious.

It is because of this that the Working Committee proposed a transition period of three years, with the new mechanism being implemented for the formal sector fund after the first two years, and to be followed one year afterwards. Under this scheme, beneficiaries would not feel the change until after the transition is over, most of the work to be done will be with respect to back-office operations.

16.4 Actual implementation of the program by the government

With the advent of the new government in January 2001, the logic driving the implementation of its universal health insurance system was turned upside down. Instead of preparing for the transition in an organized fashion, it went on an experimental spree. It still intends to implement it in a gradual fashion, but it will do so by introducing universal health insurance to different groups of provinces at a time. People living in the first group of six provinces have already received universal health insurance as of April 2001. Fortunately these provinces have been the beneficiaries of an experimental program introduced a few years back, and hence the transition has been only minimally chaotic. Another group of fifteen provinces is slated to benefit from the program in July 2001, and current plans are for the rest of the country to

move over in April 2002.

To implement these programs, the Ministry of Public Health will allocate funds to its provincial health officers on a capitation basis. They will then purchase the services from hospitals in their respective provinces, with the payment mechanisms to be agreed upon on a province-by-province basis. Within the province, the beneficiaries will be assigned to the health-care facilities nearest to them, and they will not have any choice in the matter at least for the first two years.

This program will be administered entirely by the Ministry of Public Health, and is targeted at the population outside the Social Insurance program and CSMBS. Since the former program does not have a roster of its beneficiaries by province and the latter have none at all, it is expected that there will be a considerable overlap.

While the implementation of the program will probably lead to considerable chaos, the financial burden will probably be under control. As the beneficiaries do not have a choice of their hospitals, their use of the facilities is expected to be low. For this reason, it is expected that the public hospitals, particularly in the provinces, will make a profit, despite the fact that the individual provinces will receive somewhat less finance per capita than our estimate of requirement above. Against this, public hospitals at the secondary and tertiary levels are expected to suffer some losses in income. For them, the critical issue is how the referral system will work, in particular, when a patient is referred to these higher level hospitals, is he accompanied by some sort of finance? And if so, what are the rules of the game as to what the hospitals can charge?

But the real difficulties ahead lie in the manner by which the Ministry of Public Health has captured the initiative and ploughed ahead with its plans, without consulting with other agencies. These other actors include the teaching hospitals, the main provider of tertiary care. It also includes the Social Insurance Office, and its supervising ministry, the Ministry of Labor and Social Welfare. All of this is storing up trouble for the future. There is a proposal to set up an Office of Transition to bring in the broader issues to the table, but it is being shuttled back and forth awaiting resolution. Unless the government, and not just the Ministry of Public Health, gets its act together, the public health insurance system in Thailand will continue to be as scattered and ad hoc as at present.

The political victory of the Thai Rak Thai party was a beacon of hope for the introduction of universal health insurance in Thailand. Unfortunately, that beacon is looking distinctly dimmer.