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HEALTH FINANCING IN THAILAND
TECHNICAL REPORT

By [1]

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EXECUTIVE SUMMARY

GDP per capita in Thailand increased in real terms almost 3-fold between 1975 and 1995 to 3,000 baht. This growth was accompanied by a shift in the structure of the economy from the agricultural sector to the industrial sector, and increased openness to trade. An increasing percentage of the population is moving to urban areas. The percent of the population below the poverty line declined to 19 percent, although the income disparity between the top 20 percent and the lowest 20 percent of the population increased.

During this same period, the infant mortality rate (IMR) declined by 40 percent (to 33 deaths/1000 live births) and the population growth rate more than halved (to 1.1% in 1995). The age structure of the population shifted away from those under 15 years of age to an increasing number of those over 60 years old. As a consequence, Thailand is facing higher prevalence of those with chronic illnesses. However, the IMR and life expectancy figures for Thailand are not as good as those for other Asian countries that spend less per capita for health. This suggests that Thailand may be developing a high technology health care system rather than one which addresses the life-threatening primary care problems of the majority of the population.

Public and private expenditures for health services increased in real terms and the population has shifted away from self-care to institutional (clinic and hospital) care. On the providers' side, the private sector has grown, both in terms of physicians in private practice (22 percent of all physicians), and hospitals (21 percent of all beds). However, the growth of the private sector has largely been in urban areas; the public sector still is the dominant provider of health services in rural areas.

There is some debate on the percent of GDP spent on health in Thailand, however the most recent reliable figures suggest 3.6 percent. Of this total expenditure, the public sector makes up 51 percent, and the private sector 49 percent. In terms of financing health facilities, 75 percent of financing for public health facilities is from public sources (including insurance), and 25 percent from private sources; whereas 75 percent of financing for private facilities is from private sources, while the remainder comes from public sources.

Sixty-six (66) percent of all public expenditure for health is managed by the Ministry of Public Health, with the remainder managed by other Ministries or government agencies. The budget for the MOPH increased in real terms by 258 percent between 1986 and 1996. However, due to the economic crisis in Thailand which began in 1997, the growth of the MOPH budget from 1995 to 1999 will be only 6 percent in real terms.

In 1998, the MOPH allocated 42 percent of its budget for salaries, 31 percent for other recurrent inputs, and 27 percent for capital expenditure. During the "bubble" economy of the early 1990s, allocations for capital expenditure increased by over 50 percent in real terms. Cutting capital expenditure was one of the key features of the MOPH's response to the economic crisis. In addition, the MOPH has not been filling vacant posts, has

attempted to control drug costs through the development of hospital formularies, and has cut training and travel expenses.

The allocation of MOPH expenditure to provinces does not appear to be based on concern to provide more subsidy to provinces with lower income. Rather, allocations are based on the historical requirements for budget based on the existing and newly constructed infrastructure. Thus, there is a need for the planning of new capital investment to reflect the needs of under-served areas, not just those represented by strong politicians.

Households are the other principle source of financing for health services. For the period from 1986 to 1996 the real increase in household health expenditure per month was 55 percent (to 343 baht/household/month in 1996). Expenditure for self-treatment declined by 30 percent in real terms, but increased for treatment at public facilities by 66 percent, and at private facilities by 125 percent. The specific shifts vary between the 5 regions (Bangkok, Central, Northeast, North, South), with some favoring growth of public over private expenditure, and in other areas the opposite. However, the ratio of total household monthly expenditure in the Northeast as compared to Bangkok decreased from 0.92:1 in 1986 to 0.48:1 in 1996, showing that a greater proportion of the increase in household health expenditure occurred in Bangkok, as compared to rural areas.

Household health expenditure patterns between 1986 and 1996 also differ by the employment of the head of the household and by region. For the country as a whole, household health expenditures increased in real terms for all groups. However, the increase for clerical/sales workers was only 11 percent (starting from a low base), whereas it was 212 percent for professionals (starting from a higher base). The expenditure patterns for the "economically inactive" were also notable as they showed significant volatility, and a relatively high level of expenditure. While it would be expected that the "economically inactive" would have less income to spend for health, the category includes the disabled and elderly, who would have high health costs, and may live in a household with a family member who is employed.

Household expenditures at public sector health facilities forms a significant proportion of the operating costs of these facilities. Including salaries, hospital revenue constituted about 50 percent of the operating costs of 89 provincial hospitals, and 350 district hospitals between 1988 and 1990 [2]/.

Relatively few cost accounting studies have been carried out about the costs of providing health services in Thailand, and these primarily by academics. There is a need for health facility administrators to have better information about the costs of providing care, and for the MOPH to have this information to inform the setting of pricing ranges in the "Blue Book". In addition, it is necessary to develop cost profiles for the treatment of specific illnesses. The current practice of totaling up "charges" and then applying a "cost

[2] / It is important to analyze the proportion of hospital costs covered by revenues later during the 1990s to see if these charges are covering the additional recurrent costs resulting from the MOPH's heavy investment in the sector.

to charge" ratio to estimate costs is good for "back-of-the envelop" analyses, but is not adequate for determining capitation rates weighted by age, sex, or DRGs.

There are 5 major forms of comprehensive health insurance in Thailand. There are other limited insurance programs for work (WCS) or vehicle-related (TAPS) accidents. The five schemes are:

- Civil Servants' Medical Benefits Scheme (CSMBS)
- Social Security Scheme (SSS)
- Voluntary Health Card Scheme (VCS)
- Low-income Card Scheme (LICS), and
- Private Indemnity Insurance

The key features of the programs can be seen in the table below:

NAME	COVER-AGE ('000,000)	POP COVERED	SOURCE OF FUNDS	PROVIDER PAYMENT MECHANISM	UTILIZATION	
					OP Visits/ Capita	IP Adm/ 100
CSMBS	6.6	Civil Servants & Dependents	Gnrl Tax	Fee-for-Service	5.5	13.6
SSS	4.8	Employees in Firms < 10 persons	1.5% Emp/ Empr/Govt	Capitation	1.4	2.6
VHCS	6.0	Near Poor	MOPH Fund	Capitation	1.7	5.8
LICS	27.0	Indigent	MOPH Fund	Global Budget	0.7	3.0
Private	1.2		Premium	Fee-for-Service	2.0	5 – 6

Approximately 76 percent of the population is covered one of these health insurance programs. The remaining 24 percent must either pay out-of-pocket fee-for-service, or receive free/subsidized services from public health facilities. As can also be seen from the table there are a number of provider payment mechanisms. These mechanisms lead to observing higher utilization rates under fee-for-service (provider-induced demand), and lower rates of service under capitation. Each of the major public health insurance programs will be reviewed in further detail below.

The Civil Servants' Medical Benefit Scheme (CSMBS) covers all government employees and pensioners, and their dependents. The scheme is tax financed and managed by the Ministry of Finance (MOF) – which acts more like a "rubber stamp" than a manager of a health benefits program. There is no program to screen claims for fraud, and no beneficiary database. In real terms expenditures increased by about 14 percent per annum up through 1997. As a consequence of the economic crisis the MOF adopted some demand-side cost control measures such as copayments and elimination of the option to be reimbursed for care from private providers. Evidence from analysis of data collected in the Khon Kaen province suggests that these measures resulted in a 13 to 15 percent

reduction in expenditure. Specifically cost savings were achieved by the use of essential drugs (there was a copayment requirement for non-essential drugs), reduction in the length of stay (LOS), reduction in use of the private wards, and reduced use of the private sector. Since income from CSMBS patients has been a source of funds with which to cross-subsidize care for the poor, it will be necessary to assess whether the access of the poor to care has also been restricted.

HSRI staff are now working with the MOF and other concerned parties to select and adopt supply-side measures to achieve further reductions in the CSMBS's cost. A series of meetings resulted in the selection of payment mechanisms, specifically capitation for outpatient care and DRGs and global budget for IP care. Estimates of the outpatient capitation amount were set at 615 baht, and for inpatient admissions 11,681 baht. More recently there has been discussion of putting the CSMBS under an inclusive (IP and OP) capitation payment, and have the scheme managed by the SSO.

The Social Security Scheme (SSS) and the Workman's Compensation Scheme (WCS) are managed by the Ministry of Labor and Social Welfare (MOLSW). While the two schemes cover nearly the same population, i.e. employees in firms of 10 or more workers, they collect premiums and pay providers in different ways. Specifically, the SSS collects 1.5 percent of an employee's wages from the employee, the employer, and an equal contribution from the MOSW, and pays providers on a capitation basis. Recent changes have been the increase in the capitation rate from 700 to 1,000 baht, and the elimination of the requirement that the MOSW contribute an amount equal to the employee. The WCS collects from 0.2 to 2.0 percent of total wages depending upon the firm's workplace safety record. It is believed that the WCS contribution rate is too low to affect workplace safety standards. Providers are paid on a fee-for-service basis up to 35,000 baht per case.

There are several recommendations for improving these two programs. One is to merge the programs and increase the capitation rate by 162 baht to cover the costs for workman's compensation. Another is to set aside funds to pay for emergency care provided by a hospital other than the one receiving the worker's capitation payment. In addition, it is suggested that funds be set aside to bring about improvements in workplace safety. In addition, the TA team recommends that SSS coverage be expanded to: dependents, retirees, the self-employed, and the recently unemployed (in that order). Thea team also recommends development of a registration system that tracks changes in hospital affiliations of patients; and of a system to monitor and assure the quality of patient care.

The Voluntary Health Card Scheme (VHCS) started in the mid-1980s as community revolving funds under the Primary Health Care initiative, and has over time evolved into a voluntary health insurance program aimed at the near poor. The premium collected is currently from three sources: households, the MOPH, and ADB loan funds, and totals 1,500 baht per card. There are several problems with the VHCS. The most important may be that it is not reaching its target population, as the wealthy also purchase the card. In addition, the premiums collected do not cover the costs of care provided to the household. The cards provide perverse incentives to providers who counsel patients to

get cards to pay for hospital costs but charge additional patient fees on the side. Recommendations for reform include:

- Raising the price of the card to cover costs.
- Collecting premiums more frequently during the year to allow the card to be more affordable than if collected in one lump sum.
- Requiring patients to follow a referral line from the district level to the provincial level in order to avoid hospital fees.
- Decentralizing the sale of the card to local governments, which should be encouraged to add their own resources.
- Encouraging a qualifying period to reduce adverse selection.

The Low-income Card Scheme (LICS) started in 1975 with the objective of reducing inequity by providing free medical care services to the poor. In 1994, five other types of individuals were added to those eligible to receive the low-income card. These groups are: the elderly, children under 12 years of age, veterans, religious and community leaders, and the handicapped. The scheme has been criticized for not correctly targeting the low-income population, and for having expanded to populations which may have other forms of health insurance, or which didn't need financial assistance. LICS cardholders are to seek care first at health centers, and if needed be referred to higher level facilities. They often bypass district facilities for provincial hospitals. As a consequence of the widespread distribution of the cards the program is severely under-funded with an allocation of only 250 baht per capita. Over time the allocation formulas to determine the level of funding to any specific province/region have changed, and this has resulted in less or greater equity of distribution on a per capita basis between the poor regions (like the Northeast) and more wealthy areas (like the Central region). The current allocation formula based on the population adjusted by standardized mortality ratios, the outpatient and inpatient output of the hospital, the presence of a regional hospital, and the average income of the population in the province.

Recommendations to improve the LICS include the application of new poverty line definitions to serve as a means test for distribution of the card, and that the cards be distributed by local authorities based on their information about indigency. In addition, an information system should be set up to count the number eligible under the scheme. This will enable the MOPH to finance the LICS on a capitation basis, rather than by budgetary allocation. Referral patterns from the district to the provincial level should be reinforced by having those eligible for the low-income card to register with a primary care provider.

Finally, there seems to be consensus among MOPH professionals of the need to develop universal health coverage for all Thais. Efforts to develop a legal basis for universal health coverage are under way, but many issues remain. The medium-term strategy which the TA team proposes is that the relevant Ministries and policy makers strive to make more uniform the benefit structures and provider payment mechanisms of the existing health insurance programs.

CHAPTER 1
BRIEF ECONOMY OF THAILAND

A. STRUCTURE OF THE ECONOMY

The structure of the Thai economy has changed over the past 20 years. Growth has occurred in the industrial sector (specifically manufacturing) from 26 to 40 percent of GDP at the expense of growth in the agricultural sector declining from 27 to 11 percent. In addition, the economy became more open with greater reliance on imports (see Table 1.1 below).

Table 1.1: *Structure of Thailand's Economy, 1975 to 1996*

(% of GDP)	1975	1985	1995	1996
Agriculture	26.9%	15.8%	10.8%	10.7%
Industry	25.8%	31.8%	39.4%	39.8%
Services	47.3%	52.3%	49.7%	49.5%
Imports	23.0%	25.9%	47.9%	44.3%

Source: World Development Indicators, World Bank, 1998.

Mirroring the change in the structure of the economy are changes in the distribution of the population between different employment categories. Those employed in agricultural activities (i.e. those owning land, those renting land, farm workers, and general workers) declined from 48 percent of the population in 1988 to 33 percent of the population in 1996. The number of persons involved in the industrial sector (i.e. production workers and general workers) increased from 14 percent in 1988 to 19 percent in 1996. The number of persons in the services sector (i.e. entrepreneurs and clerical/sales personnel) increased from 23 percent in 1988 to 28 percent in 1996. The percent of professionals remained fairly constant, increasing from 5.8 percent in 1988 to 6.1 percent in 1996. The percent of the population classified as "economically inactive" increased from 10 percent in 1988 to 13 percent in 1996 (see Table 1.2).

Table 1.2: *Distribution (%) of Households by Employment Class, Thailand, 1988 - 1996*

	1988	1992	1996
Land – related	47.5	42.4	33.2
Production – related	13.6	16.3	19.1
Service – related	23.3	25.5	28.1
Professionals	5.8	5.6	6.1
Economically Inactive	9.8	13.1	13.4

Source: NSO Socio-Economic Surveys, Whole Kingdom, 1988 –1996.

B. PERIOD OF RAPID GROWTH [3]/

Thailand experienced real rapid economic growth of 9.6 percent per annum over the period 1986 to 1996. Thailand's public finances were in positive balance for the decade 1987-96. In the late 1980s and early 1990s capital surged into the economy, and allowed for expansion to meet strong increases in aggregate demand. Domestic public debt was paid down. The public sector balance contributed to stability in growth by providing a low inflation environment conducive to high savings and investment. Social expenditures (education, health, social security and welfare, housing and community amenities) increased as a percent of both central and local government expenditures (see Table 1.3). The percent of the population under the poverty line declined from 33 percent in 1988 to 11 percent in 1996, suggesting that the economic boom did have a "trickle down" effect. At the same time, the Gini coefficient worsened.

Table 1.3: *Social Expenditure as a Percent of Total and Local Government Expenditure, Thailand, 1987 to 1996*

	1987	1990	1993	1996
Central Govt Exp (billion Baht)	227.3	307.4	504.6	755.3
Cent Govt Social Exp	69.6	100.3	177.6	287.5
Cent Govt Social as % of Tot Cent Govt	30.6%	32.6%	35.2%	38.1%
Local Govt Exp	n.a.	24.4	40.3	n.a.
Local Govt Social Exp	n.a.	9.5	18.5	n.a.
Local Govt Social Exp as % of Local Govt Exp.	n.a.	38.7%	45.9%	n.a.

Note: Social expenditures are taken here to include central or local government expenditures for education, health, social security and welfare, and housing and community amenities.
Source: IMF (1997) Government Finance Statistics Yearbook.

C. CRISIS

Deregulation of the Bangkok International Banking Facilities (BIBF) in 1994 resulted in over-borrowing for non-productive activities. High economic growth, and a over-valued exchange rate, resulted in high demand for imported luxury goods, and reduced export competitiveness, to the point where the current account deficit was 8 percent of GDP in 1995 and 1996. This high rate of deficit led to two attacks by international investors on the baht in 1997. Government defense of the baht resulted in rapid depletion of foreign reserves and massive public debt. These economic events led to the devaluation of the baht through a policy called "Managed Floating of the Baht". The baht lost a significant percent of its value, thus making international debts more expensive to repay.

[3] / This section of the paper draws heavily from a paper by Wilbulpolprasert, Tangcharoensathien, and Lertiendumrong (April 15, 1998).

The Thai government approached the International Monetary Fund for a Stand-by Agreement, which was granted to the level of US$ 17.2 billion. Policy changes required by the IMF included cuts in government expenditure, increasing the VAT from 7 to 10 percent [4]/, and increasing the excise tax on gasoline, tobacco, alcohol, and other luxury goods. Disbursement of the loan was to be used to restructure the financial sector and privatize public enterprise.

The economic crisis and standby agreement have had a serious impact on economic growth. Table 1.4 shows estimated and projected figures for the Thai economy between 1996 and 2001. Nominal rates of economic growth are negative for 1997 and 1998, and nominal levels of per capita income also decline when converted to dollar terms. The Consumer Price Index (CPI) increases to 11 percent in 1998, and then is projected to decline to 4 percent by 2001 [5]/. However, there is continuous and dramatic improvement in the current account deficit as a percent of GDP. Government revenues are projected to exceed expenditure in all years but 1997 and 1998, when the cash balance of the government is also to turn negative.

Table 1.4: *Medium Term Trends of the Thai Economy, 1996 – 2001*

Indicators	**1996p**	**1997e**	**1998e**	**1999e**	**2000e**	**2001e**
GDP Growth (% p.a.)	5.5	- 0.4	-3 to –3.5	1.8	3.4	3.7
GDP/Capita						
Baht	76,650	79,274	82,941	90,340	98,654	106,550
US$	3,027	2,525	1,843	2,258	2,504	2,697
CPI (%)	5.9	5.6	11.6	6.0	5.0	4.0
Current Account (% GDP)	-7.9	-2.2	3.9	2.8	1.5	0.2
Government						
Revenue (B Baht)	850.2	844.2	785.0	837.4	923.5	1,005.3
Expense (B Baht)	750.2	888.5	835.4	823.1	913.9	993.9
Cash Bal. (% GDP)	2.3	-0.6	-1.0	0.3	0.2	2.0

Source: National Economic Social Development Board, March 1998.

During the crisis period, the Asian Development Bank and the World Bank provided Thailand with social sector loans to replenish foreign reserves and to support essential programs. In addition, the government made efforts to protect programs that support the poor and vulnerable. Specifically, the MOPH made significant cuts in capital expenditure from 25 billion baht in 1997 to 6.6 billion baht in 1999 (a 74 percent cut in nominal

[4] / Raising of the VAT contributed to increases in drug prices of 20 to 20 percent for the year 1997. Local drug prices increased by 15 to 18 percent.

[5] / By January 1998, the imported drug (finished products) wholesale cost had increased by 20 to 25 percent. Prices for locally produced drugs increased by 15 to 18 percent.

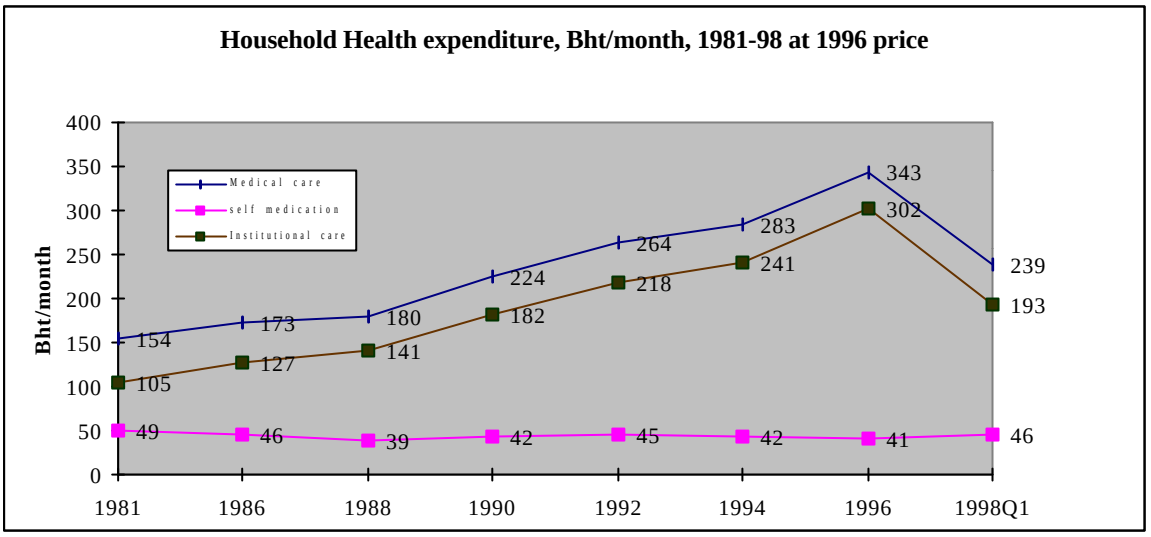
terms) [6]/. In addition, the Cabinet froze all hiring, however exempted new medical and nursing graduates (about 6,000 personnel/year). The MOPH canceled all travel which required overseas transport and per diem, and limited domestic travel for workshops and conferences. Efforts were made to reduce the utilities' budgets. The total budget cut from 1997 to 1998 for the Ministry of Public Health was 9.4 billion baht (a 14 percent cut in nominal terms). While this cut represented one of the six ministries with the highest cuts in nominal terms, the overall percent of the government budget that was allocated to health increased from 7.1 to 7.5 percent (data from Appendix Table A.1).

As a consequence of the economic crisis, unemployment has increased in Thailand . By February 1998, it was estimated that there will be 2 million unemployed, and if school leavers and new graduates are included this figure increases to 3 million. Two-hundred, forty-eight (248) districts out of 704 were declared "critical areas" with 500 or more persons unemployed. The largest percentage of unemployed live in the Northeast (approx. 61 percent), followed by the North (approx. 28 percent), the Central region (8 percent), and the South (4 %) [7]/. By law, sickness coverage under the SSS terminates after 6 months following job loss. The Ministry of Labor and Social Welfare (MOLSW) is making efforts to extend this coverage period, but this requires a change in the Act. Another problem is when an unemployed person returns to their hometown that their SSS insurance is not readily "portable" to a location other than the designated provider. The crisis has lowered household expenditure on services from health institutions between 1996 and the first quarter of 1998 by 36 percent in real terms, while increasing self-treatment expenditures of purchases from pharmacies by 12 percent in real terms (see Figure 1.1). Further details on trends in household expenditure for health and regarding the impact of the crisis on these expenditures appear in Section II.C.2.b.

[6] / It is worth noting that the MOPH budget had a rapid increase in capital expenditure from 1990 to 1999 (254%) as compared to the period of 1980 to 1989 (112%).

[7] / The Northeast and North have more unemployment in the agricultural sector, whereas unemployment in the Central and South regions is more prominent in the industrial sector.

Figure 1.1: *Trends in Household Expenditure for Health, both Self-Treatment and Institutional Care, 1981 – 1998, 1996 prices.*



Source: NSO figures, Tangcharoensathien, 1998.

Economic forecasts for the near term for Thailand range from pessimistic for 1998 to showing some improvement for 1999. For example, The Siam Commercial Bank Research Institute forecasts that the Thai economy will contract by 7.4 percent in 1998 from 1997 levels. However, the Bank also forecasts an overall rate of growth of 5.2 percent in 1999 as the result of a stable baht, lower inflation, and stimulus measures by the government[8] / . Other estimates for 1999 have ranged from 0 to 2 percent growth (Bangkok Post, November 15, 1998).

[8] / Estimated growth rates for specific quarters are: 1st : -3.8 percent, 2nd: 1.2 percent, 3rd: 9.6 percent, and 4th: 14.6 percent.

CHAPTER II
HEALTH SECTOR FINANCING OVERVIEW

A. NATIONAL HEALTH ACCOUNTS

The financing of the health sector in Thailand has at least two "mysteries": i) what is the percentage of GDP spent by the public and the private sector for health, and ii) what is the percent of total health expenditure borne by the private as compared to the public sector. These are mysteries in that the data from different sources, and at different points in time, do not support the same conclusions. The first national health account for Thailand was carried out by Myers, et.al. (1985). This group estimated that health expenditure was 4.6 percent of GDP with a public to private sector ratio of 32:68. Hsiao (1993) estimated national health accounts data for the period 1978 to 1992. His figures for 1984 found that Thailand spent 5.1 percent of its GDP for health, but confirmed that the public to private sector ratio was 32:68. A systematic national health accounting exercise was carried out by Thai academics with 1994 data. Their results challenged those found earlier as they estimated that only 3.6 percent of GDP was spent for health, and that the public to private sector ratio was 49:51 (see Table 2.1). This latter study included capital expenditure, as well as recurrent expenditure. The National Economic and Social Development Board (NESDB) also carried out a national health accounts exercise for the same year – 1994 – but estimated that Thailand was spending 5 percent of GDP for health, and that the ratio of public to private expenditure was 18:82 – results that were radically different from those of the academics' study [9]/.

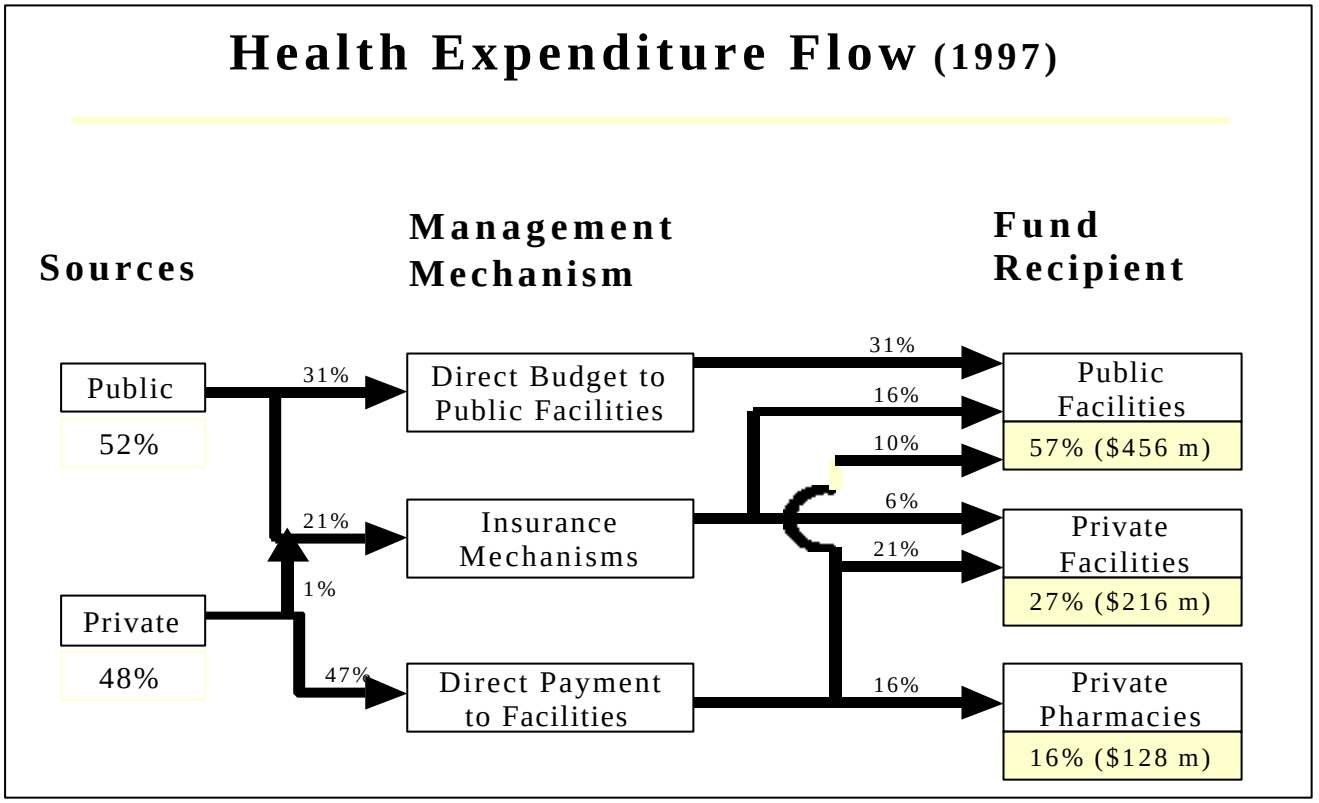
[9] / Reasons for the discrepancies between the academics' study and that of the NESDB for 1994 are primarily due to the way that household expenditure was measured. The academics utilized data from the Socio-Economic Surveys to measure household expenditure for health, whereas the NESDB extrapolated from 1980 estimates of household expenditure for drugs and non-drug services. Other evidence indicates that the distribution of financing would have changed over the decade and a half between the two NESDB studies.

Table 2.1: *National Health Accounts, Thailand, 1983 to 1994*

SOURCE OF FINANCING	1983	1992	1994
Public			
MOPH/Other Ministries	26.4%	20.1%	36.7%
CSMBS/State Enterprises	3.8%	3.9%	9.0%
Quasi-Public			
SSS and WCS	0.5%	1.7%	3.0%
Traffic Accident	0.0%	0.0%	1.5%
Health Card (VHCS)	0.0%	0.1%	0.5%
Private			
Out-of-Pocket	67.5%	73.6%	43.8%
Private Insurance/ Employer	0.8%	0.4%	5.5%
Foreign Aid	0.9%	0.2%	0.0%
TOTAL (Billion Baht)	41.8	148.5	128.3
TOTAL/CAPITA (Baht)	845	2,474	2,171
HLTH EXP as % of GDP	4.6%	5.9%	3.6%

Source:
1983 – Myers et.al. (1985)
1992 – Hsiao, adj. (1993)
1994 – Laixuthai et.al.
(1997)

Figure 2.1:



Source: Songkhla, et.al. (June 28, 1997).

The above figure (Figure 2.1) follows the attribution of health expenditure between public and private sources according to the 1994 study. Of the 52 percent of public expenditure, 31 percent goes to support public facilities. Twenty-one (21) percent goes to insurance schemes, and of this 16 percent goes to public facilities. An additional 10 percent of payment to the public facilities comes from private sources. Thus, public facilities depend on *public* sources of financing for about 75 percent of their total expenditure ((31 + 16)/(31 + 16 +10)). In contrast, private facilities receive 6 percent of total expenditure from insurance schemes, and 21 percent of expenditure from private payments. Thus, in contrast to the public facilities, private facilities depend on *private* payments for about 75 percent of their total revenue ((21/(6 + 21)). Overall, pharmacies are wholly dependent on private payments, which constitute about 16 percent of total health expenditure.

A slightly different analysis might be made with the 1994 National Health Accounts data to show the level of expenditure by local government, and the allocation to public health programs (see Table 2.2).

Table 2.2: *Allocation of Recurrent and Capital Health Expenditure by Source of Financing, Thailand, FY 1994*

	Consumption Expenditure (%)				Consumption Exp. (baht million)	Capital Expenditure (baht million)	TOTAL
	Admin	Public Inst	Private Ins	Pub Hlth Programs			
Fin. Agency							
MOPH and Other Ministries	15%	58%	0%	27%	29,256	12,263	41,519
Other Central Govt	8%	61%	30%	1%	17,282	136	17,418
Local Govt	16%	3%	0%	82%	5,289	285	5,574
Households	0%	34%	66%	0%	49,676	7,265	56,941
Other Private	18%	20%	55%	7%	6,364	489	6,853
TOTAL	6%	36%	32%	10%	107,867	20,438	128,305

Source: complied from Tangcharoensathien, V. (unpublished table).

The data in Table 2.2 reinforce the importance of both private household and central government expenditures for health overall. Households spend about 34 percent of their total expenditure on services from public institutions, and 66 percent in private sector institutions. The MOPH and other Ministries spend 58 percent on public institutions and 27 percent on public health programs. Local government allocates the highest percent of their expenditure to public health programs – 82 percent. Overall, the percent allocated to administration is 6 percent (an admirably low figure), 36 percent on public institutions, 32 percent on private sector institutions, and 10 percent on public health programs.

It is important that the Royal Thai Government (RTG) have accurate national health account data with which to assess the relative role of the public and private sector in financing and providing health care, and the level of GDP devoted to this important sector. Academics should work with the NESDB to develop a consistent methodology which can be tracked overtime. Sufficient detail should be collected to determine how financing is being used for different inputs in the production of health services, and allocated among various services and programs.

B. MOPH EXPENDITURE

1. Overall Government Budgeting Process

There are four key agencies, aside from the MOPH, which control the budgetary process, while the Cabinet and House of Representatives play influential roles. The budgetary process can be considered to have four major steps. The first step, budgetary preparation, begins in October and ends in June. First the Bureau of the Budget (BOB) notifies the line Ministries of the budget and policy guidelines for the coming fiscal year. The line

ministries prepare their budget requests and submit these to the BOB by January. In March, the BOB, Ministry of Finance (MOF - which estimates and collects government revenue), National Economic and Social Development Board (NESDB – which sets 5 year plan targets for level and allocation of expenditure, and reviews large capital projects), and Bank of Thailand (BOT), determine budget policy, estimate revenue and expenditure, and government debt. The BOB then prepares the budget for review by the Cabinet and House of Representatives (HR).

The second step, budget adoption, starts in April and May, when the Cabinet adopts a budget ceiling, and individual ministry ceilings. Line ministries review and revise their budget within the Cabinet ceilings. In June, the Cabinet submits the budget to Parliament which has to approve an Annual Appropriation Act by September. The role of the HR is limited in that it can reduce, but not increase expenditure. Reductions in expenditure under one program can be used for other programs. The overall review tends to be on a line-by-line basis, rather than a program budgeting basis. Three days are given for a first reading of the budget (June) and if not approved, this is followed by a second reading (July – August) by a special committee under the Minister of Finance. Each department is called upon to defend their budget in front of this Committee. Then there is a third reading (September) by the Parliament and the budget is passed into law.

The third step, budget execution, starts in October. The BOB approves the trimester allotments for the line ministries, which submit payment petitions to the Comptroller General's Department of the MOF, which authorizes their payment by the BOT. Each trimester's allocation depends upon the availability of cash [10]/ [11]/. Funds are sent to the central Ministry or directly to the Province depending on the facility/program to be financed. Provincial facilities bring claims to the Provincial Budget Office showing disbursement of cash. The Provincial Budget Office reports to the Comptroller General's Department of the Ministry of Finance for Items 100 – 900. All documents from the Provincial Finance Office go to regional Auditor General's Offices which conduct passive audits of budget and non-budgetary funds.

The fourth step, monitoring and evaluation, is weak. Evaluation of expenditure is carried out by the National Audit Office of the Prime Minister's Office, basically on the accounting correctness of submitted financial statements. On only a small fraction of projects and expenditures, does the BOB carry out monitoring and evaluation studies of the outcome and impact of expenditures. The NESDB conducts some broad sector-wide evaluations on a case-by-case basis (World Bank, November 30, 1997; and information provided by the BOB).

[10]/ During the last year, 1997/8, funds have been disbursed in 5 allotments. There was some concern that there would be insufficient funds for the final period. In fact, there were funds in excess of budgeted amounts, and these were largely spent through commitments to additional capital projects.

[11] / There were 3 or 4 downward revisions of the 1997/8 budget due to the economic crisis.

2. Budgeting Process for the MOPH

Once budget ceilings have been set, the different departments of the Ministry prepare their budget requests with input from BOB staff. The Bureau of Policy and Planning develops the budgetary requests for the Department of the Permanent Secretary, under which are all rural health facilities (approximately 75 percent of the MOPH budget). The provincial health plans and proposed budgets (in the overall Provincial Development Plans for all sectors) are reviewed by the Bureau of Policy and Planning.

3. Allocation Rules for the MOPH

Capital budget projects are reviewed on a case by case basis by the Cabinet. Funds in the capital budget cannot be used for operating expenses without prior approval. Funds can be carried over from one year to the next if they are obligated through a signed contract for construction or purchase by September 30th.

Budget for staff is set based on the number of posts, and an adjustment for inflation of about 3 to 5 percent. Budgets for operating expenditures are based on planned activities, and the budget for drugs is allocated on a per capita basis. Funds allocated for staff cannot be used for other operating expenditures, but the Inspector General allows for some flexibility in operating expenditures (e.g. allowances such as per diem and overtime, maintenance, and materials). There is no program budgeting.

Funds for the VHCS come from a 500 baht contribution from the household, matched by a 500 baht (currently 1000 baht with 500 baht from ADB funds) from the government. The MOPH matches all VHCS contributions, and these funds are returned to the province from which the funds were collected. There are two methods of allocating the VHCS funds to health facilities in the province. On is to allocate fixed amounts to different types of health institutions. For example, in Khon Kaen, the PCMO indicated that of the 1000 baht/household allocation that 275 baht was allocated to the provincial hospital, 475 baht was allocated to the district hospital, and 50 baht was allocated to the health center. Of the remaining 200 baht, 75 baht was set aside for reinsurance, and 25 baht was collected as the fee for selling the cards (the allocation of the remaining 100 baht was not explained). The other method of allocating the VHCS budget is on the basis of VHCS workload of the different facilities in the province. A province using this type of allocation methodology is Songkhla.

The allocation rules for the LICS program have changed over the years, see Table 2.3 and Table 5.47.

Table 2.3: *Criteria for Allocation of LICS Funds, Thailand, <1989 – 1996/8*

Criteria	<1989	1989/0	1991/3	1994	1995	1996/8
# of Facilities	100%	50%		10%		Pilot:
Population				20%	20%	Capitation
# Cardholders		50%	50-60%	20%	25%	For OPD, DRG for
Workload				45%	55%	IP
Hlth. Problems			40-50%	5%		

Source: Songkhla, et.al. (June 28, 1997).

Currently, 1998, the budget is allocated on capiation including a formula amount per out-patient visit, weighted by the type of health facility; and as a formula amount per inpatient day, weighted by the type of hospital.

4. Trends in the MOPH Budget

Figures are available to trace the growth of the MOPH's capital and recurrent budget from the period 1982 to 1999. During this period, the MOPH budget grew by 269 percent, and by 189 percent per capita, in real terms. This growth exceeded the rapid economic growth of the country as the budget of the MOPH increased from 0.8 to 1.2 percent of GDP, and mirrored the increased emphasis on government financing for social sectors as health expenditure increased from 4.1 to 6.7 percent of total government expenditure.

During the 5th Plan (1982 – 1986) the overall budget of the MOPH increased by 28 percent. Over the period, the budget for salaries increased by 49 percent and other recurrent expenditures by 35 percent in real terms. The budget for capital allocations declined by 24 percent. In 1982, salaries comprised 42 percent of expenditure, other recurrent costs 36 percent of expenditure, and capital expenditure 22 percent of the total.

During the 6th Plan (1987 – 1991) the overall budget of the MOPH increased by 74 percent in real terms, with the budget for salaries and other recurrent expenditures increasing by 55 percent each, and the capital budget increasing by 232 percent. In 1987, salaries comprised 53 percent of total expenditure, other recurrent remained at 36 percent, and the allocation to capital expenditure declined to 11 percent. The 5th and 6th Plan were periods when the MOPH emphasized the development of Primary Health Care services.

During the 7th Plan (1992 – 1996) the overall budget of the MOPH increased by 87 percent in real terms, with the budget for salaries increasing 62 percent, other recurrent expenditure by 59 percent, and capital expenditure by 165 percent. In 1992, salaries comprised 44 percent of total expenditure, other recurrent expenditure remained at 33 percent, and capital expenditure increased to 24 percent of total MOPH expenditure. During the "bubble economy", this period was marked by a rapid expansion of capital investment in the health sector.

The economic crisis has affected both the level and allocation of the health budget. In real terms, the amount budgeted per capita for 1999 is roughly equivalent to that budgeted in 1994. Over the 5 year period from 1995 to 1999, the budget for salaries are expected to increase by 30 percent, other recurrent expenditure by 36 percent, and capital expenditure to decline by 54 percent, in real terms (see Tables 2.4 and 2.5 and Appendix Table A.1).

Table 2.4: *Trends in MOPH Expenditure Over Time, Thailand, 1982 – 1999*

YEAR	MOPH B'000,000	MOPH % GDP	MOPH % GOVT	MOPH REAL '96 B'000,000	% CHANGE	MOPH REAL '96/ CAPITA
					(5 yr. tot)	
1982	6,641.4	0.8%	4.1%	12,367.6	26.3%	246
1987	9,544.5	0.8%	4.2%	15,621.1	93.6%	286
1992	24,642.4	0.9%	5.4%	30,236.1	112.6%	518
					(annual)	
1997	66,440.0		6.8%	64,293.3	13.7%	1,032
1998	59,920.8		6.8%	55,074.3	-14.3%	872
1999	57,144.8		6.7%	49,691.0	-9.8%	777

Table 2.5: *More MOPH Trends Over Time, Thailand, 1982 – 1999*

YEAR	MOPH REAL/ CAPITA (Baht)	SALARY %	OTHER RECURR %	CAPITAL	OTHER RECURRENT/ CAPITA (Real '96 B)
1982	246	42%	36%	22%	89
1987	286	53%	36%	11%	103
1992	518	44%	33%	24%	171
1993	618	43%	34%	23%	210
1994	679	40%	32%	28%	217
1995	742	38%	30%	32%	223
1996	919	38%	28%	34%	257
1997	1,032	34%	27%	39%	279
1998	872	42%	31%	27%	270
1999	777	47%	39%	14%	303
% Change '95-'99		29.6%	36.2%	-54.2%	

Trends can also be analyzed in the MOPH's budgetary allocations to different services and programs (see Table 2.6). The data in this table suggest that the distribution of the health budget to different services and programs has remained quite constant over time. This is rather surprising given the large expansion of health infrastructure during the 7th Plan. It would be assumed that the curative budget share would increase[12]/. The advent of AIDs may be reflected in the increased percentage shares for health promotion and disease control programs. Allocations to HRD and Training both decline, having implications for improvement of HRH distribution to rural areas through improved training opportunities.

Table 2.6:*Percent Allocation of MOPH Budget to Different Services and Programs, Thailand, 5th to 7th Plans*

Type of Expenditure	5th Plan (1982-1986)	6th Plan (1987-1991)	7th Plan (1992-1996)
Administration %	6.65	7.31	5.50
Curative %	58.54	57.91	55.53
Health Promotn %	17.25	16.13	19.29
Disease Control %	10.12	10.97	11.76
Addict Control %	0.52	0.53	0.60
Rehabilitation %	0.24	0.26	0.33
HRD %	3.62	2.93	2.96
Training %	1.15	1.12	0.54
PHC %	0.79	1.70	2.23
Consmr Protectn %	0.89	0.87	0.95
Research %	0.23	0.27	0.33
TOTAL (B million)	44,508.98	74,253.70	223,792.39

Source: adapted from Tangcharoensathien, V. (2541).

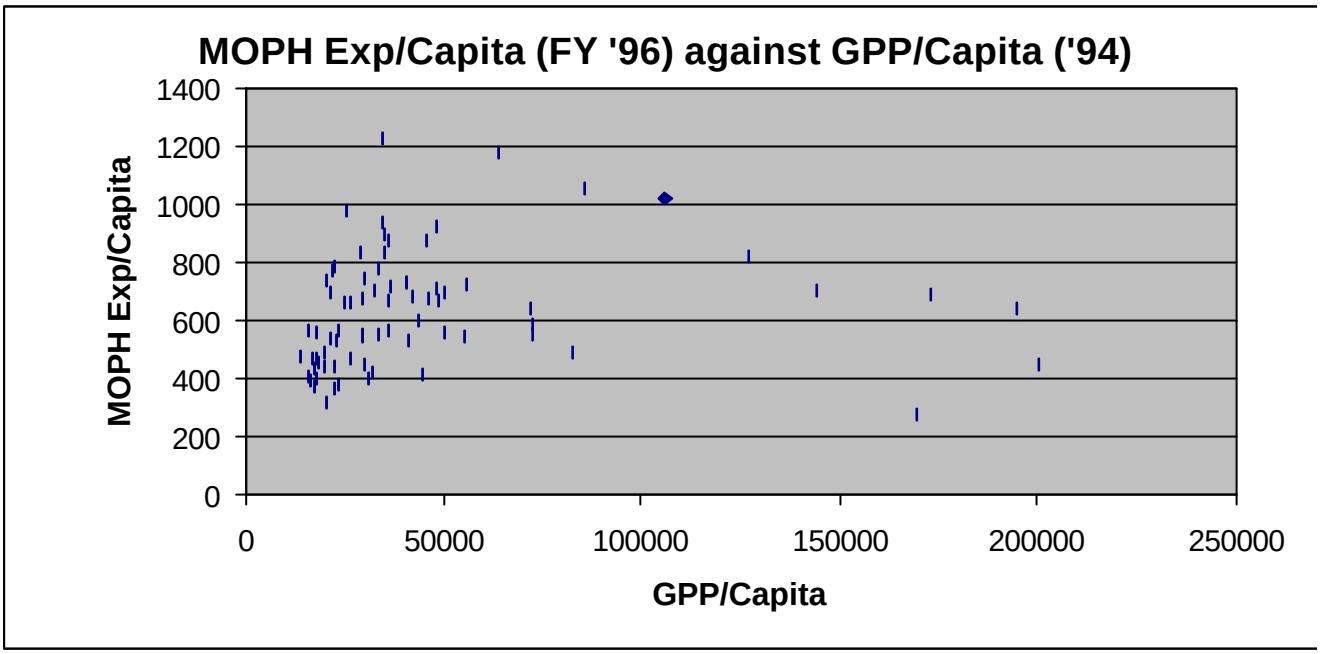
5. Allocation of MOPH Budget Per Capita to Provinces as Compared to Gross Provincial Product, 1996

Information was compiled on the allocation of MOPH capital and recurrent health expenditure (actuals) for 1996 by province and plotted against the Gross Provincial Product (GPP) per capita for 1994 [13]/. The resulting plot can be seen in Figure 2.2.

[12] / The increase in recurrent expenditure expected from expansion of the capital stock of the MOPH might be financed through higher user fees. *The existence of any link between rapid cost inflation for the CSMBS and SSS programs, as well as in user fee schedules, and the increase in capital investment during the past 15 years, should be investigated.*

[13] / GPP for 1994 was used as the MOPH would not have access to GPP figures for 1996 during their budget planning.

Figure 2.2:



The figure shows that more than half of all provinces have GPP per capita below 50,000 baht, and receive MOPH expenditures equal to 300 to 600 baht. Above a GPP per capita of 50,000 baht, the MOPH expenditure (capital and recurrent) declines with an increase in provincial income. Nevertheless, more than half of these provinces receive health expenditures above 600 baht per capita. This figure suggests that the allocation of MOPH expenditure allocation does not address the inequality in the distribution of income between provinces, but is based on other criteria than population and income.

6. Discussion and Recommendations

After households, the MOPH plays the most significant role in the financing of health services in Thailand. Thus the allocation of MOPH financing can determine to a great extent the technical and allocative efficiency of the sector, and the equity in access to services. Until the "bubble" period of the 7th Plan, the MOPH allocated resources between salaries, other recurrent, and capital expenditure in a balanced way. Policy focused on delivery of primary care, and 10 percent of the budget was allocated to promotive and preventive services.

The large amount of capital investment during the "bubble" period certainly has recurrent financing implications which haven't been studied – and which deserve analysis.
The per capita allocation of MOPH financing to provinces as compared to their gross provincial product per capita suggests that the MOPH does not take a very active role in the equitable distribution of financial resources based on income (and presumably to need). The analysis on the LICS (see Chapter V in this report) points out that during the

"bubble" economy that LICS resources were not distributed equitably between regions (however this distribution has improved in the last 2 years). The TA team recommends that the allocation of the capital and recurrent budget be based on a simplified set of need-based allocation criteria. It is also proposed later in this report that these funds be transferred to provinces in the form of a block grant(s) which the province can allocate according to MOPH guidelines and its own priorities.

C. PRIVATE EXPENDITURE

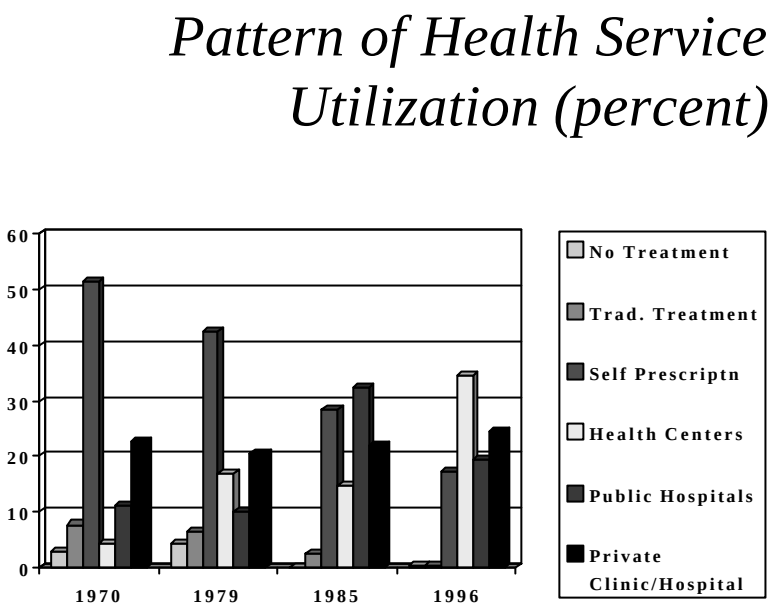
1. Private Investment

Over the period of 1991 to 1997 26,003 private hospital beds were added to the 1991 stock of 11,877 beds (a 119 percent increase). This represents an investment of 78.0 billion baht, at 3 million baht per bed. Tangcharoensathien and Lertiendumrong (September 10, 1998) estimate that 60 to 70 percent of this investment was made with foreign loans. Given the an exchange rate revaluation of 12 baht per US$ 1.00 in 1997 (from baht 28/US$ to baht 40/US$), this means the dollar-denominated foreign debt for private hospital construction increased minimally from 46.8 million baht to 66.9 million baht, a change of 20.1 million. This increased financial burden on private hospitals have led some analysts to predict that about 30 to 40 percent of private hospital beds will close down during the economic crisis (Wilbulpolprasert, Tangcharoensathien, and Lertiendumrong, 15 April 1998). It is not clear whether this will pose a problem as the bed occupancy of private hospitals before the crisis was only 40 to 60 percent.

2. Private Expenditure

As has been documented in other studies (e.g. Hsiao, 1993) the Thai population is shifting from patterns of self-treatment to institutional care. Over the 21 year period from 1970 to 1996, the percent of treatments that were self-prescribed declined from near 50 percent to under 18 percent. At this same time, the percent of treatment at public hospitals increased from 10 percent to over 30 percent in 1985, but decreased to 19 percent in 1996. The percent of the population seeking care from health centers increased from 5 percent in 1975 to 35 percent in 1996 – showing a significant improvement in the referral system. The percent seeking care from the private sector remained fairly constant (at 20 percent) (see Figure 2.3).

Figure 2.3: *Shift in Utilization of Self-Treatment as Compared to Institutional Care, 1970 - 1996*



Source: adapted from Songkhla, et.al., 1997, and 1996 figures provided from the Bureau of Policy and Planning, MOPH.

Data collected from household income and expenditure surveys carried out by the National Statistics Office (NSO) were collected and reviewed for the more recent period between 1986 to 1998. These data were converted into real 1996 baht and analyzed for each region in two ways: 1) household expenditures by source of care, and 2) household expenditures by employment class of the head of the household.

This type of analysis is useful for several reasons. First, it gives an approximation of the amount of financial resources that households are able and willing to spend for health. Second, it provides a picture of changing patterns of health seeking behaviors from self-care to public sector care to private sector care. Third, comparisons of expenditures from different regions of the country can assist with the targeting of government subsidies. Finally, comparison of expenditures by different employment groups would help in setting the contribution that different households could make for health insurance.

a. Trends in Expenditure by Source of Care

Data for the whole country, and for each of the 5 regions, for the period 1986 to 1996, support the earlier findings that the Thai population is moving away from self-treatment to other sources of care. For the whole country, the real decline in self-treatment expenditure was 30 percent, down to 41 baht per household per month in 1996. On the other hand, expenditure for treatment by public hospitals increased in real terms by 66

percent to 134 baht per household per month in 1996. Expenditure for treatment by private hospitals or clinics increased in real terms by 125 percent to 148 baht per household per month. Expenditures for other sources of care, e.g. doctor's fees, dentist's fees, and eyeglasses, increased by 25 percent in real terms to 20 baht per household per month in 1996. Overall, monthly household health expenditure from all sources increased by 55 percent to 343 baht in 1996.

The pattern of change in health expenditure is somewhat different in each of the 5 regions. In Greater Bangkok, monthly household expenditure for private hospitals or clinics increased by 242 percent in real terms over the 11 year period to 364 baht in 1996, while expenditure for public hospitals only increased by 65 percent to 123 baht. Overall, monthly health expenditure increased by 110 percent to 579 in 1996 baht.

In the Central Region, monthly household expenditure for public hospitals increased more in real terms, 107 percent, to 133 baht in 1996; whereas expenditure for private hospitals and clinics only increased by 73 percent to 142 baht. Overall, monthly health expenditure increased by only 15 percent to 274 baht per household in 1996.

In the North, the percent changes in real monthly household expenditure for health were more moderate than for all other regions (except the NE). Total monthly household expenditure for health increased by only 9 percent, to 274 baht in 1996. Real monthly expenditures for private hospital or clinic services increased by 51 percent in real terms to 105 baht in 1996. Expenditure for public hospitals increased by only 25 percent to 113 baht. Expenditure for self-treatment declined by 45 percent to 36 baht in 1996, but expenditure to other providers increased by 59 percent to 20 baht.

The Northeast Region had the lowest level of total household expenditure for health of all the regions, 241 baht in 1996. Overall, household expenditure for health increased by only 9 percent in real terms over the 11 year period. Expenditures for self-treatment declined by 43 percent to 34 baht, and expenditure for services from other providers declined by 19 percent. Expenditure for care from private hospitals and clinics increased by 97 percent to 82 baht per household in 1996.

Finally, in the Southern region, there is an unusual pattern. Expenditures for services provided by public hospitals increased by 182 percent to 239 baht in 1996, while expenditures for care in the private sector increased only 77 percent to 136 baht per household. Overall, the South has the second highest household expenditure for health after Greater Bangkok of 421 baht per month in 1996.

In summary, the shift in preference from self-treatment to institutional treatment for source of treatment is seen throughout all regions of the country. In some regions private health expenditure grew more rapidly than expenditure for public sector services, in other regions the reverse was true. The table shows that country-wide monthly household expenditure for health increased by more than 50 percent. However, the ratio of household expenditure in the Northeast as compared to Bangkok decreased from 0.92:1

to 0.48:1, showing that a greater proportion of the increase in household health expenditure occurred in Bangkok.

Likewise, the ratio of households in the Northeast which self-treated, in comparison to Bangkok that self- treated ,was 0.93:1 in 1986. The same ratio was 0.66:1in 1996. Thus, the population in the Northeast has substituted away from self-treatment more than Bangkok (see Appendix Table A.3, and Appendix Charts B.1 to B.6).

b. Trends in Level of Expenditure by Employment Class

An analysis was carried out of the changes in household expenditure for health by the employment status of the household head between the years 1986 to 1998 (2^{nd} qtr). The employment categories are:

- Households mainly owning land (24 percent of households in 1996)
- Households mainly renting land (4 percent)
- Entrepreneurs (15 percent)
- Professionals (6 percent)
- Farm Workers (6 percent)
- General Workers (3 percent)
- Clerical/Sales Workers (13 percent)
- Production Workers (16 percent)
- Economically Inactive (13 percent) [14]/.

The analysis of health expenditure by employment category for the whole Kingdom found that all categories of employment had real increases in their levels of monthly expenditure to health care over the period from 1986 to 1996. These increases ranged from 11 percent for clerical/sales workers to 212 percent for professionals. Of note is the relatively high percent of increase in expenditure for "economically inactive" households, especially as this group already had a high level of monthly household health expenditure – 445 baht in 1996 (as compared to the national average of 360 baht per household). However, the picture changes when analyzing expenditure patterns between 1996 and the 2^{nd} quarter of 1998. Expenditure dropped in all groups except for clerical/sales workers whose health expenditures increased by 26 percent. The percent reductions for the other groups range from –4 percent for general workers, to –42 percent for farm workers. These reductions are evident in the earlier Figure 1.1.

Over the entire period from 1986 to 1998 (2^{nd} qtr) the group with the highest percent increase in monthly household expenditure for health were the professionals (140 percent). This occurred even though the group started from a higher base expenditure in 1986. The group with the second highest percent increase in expenditure was general workers (73 percent). However, this group started with the lowest base expenditure in 1986. A group of three employment categories had high increased real levels of

[14] / The category "economically inactive" includes households headed by housewives, by the unemployed, by the elderly, by those with chronic illness, and those who do not wish to work.

expenditure as well: 1) clerical/sales workers (41 percent), 2) households mainly renting land (34 percent), and 3) production workers (23 percent). These categories also started from a low base expenditure in 1986. The rate of increase for the "economically inactive" was only 16 percent, although from the second highest base level in 1986. Household health expenditures by farm workers declined by 5 percent over the period, starting from a low base level in 1986 (see Appendix Table A.4, and Appendix Chart B.7).

Expenditure patterns by employment group were also analyzed for Greater Bangkok [15]/. Monthly household expenditures for health increased for all employment groups with the exception of the "economically inactive" which experienced a decline of 15 percent over the 11 year period . However, this group had the second highest level of expenditure in 1986, and had high spikes of expenditure in 1990 and 1994. Thus it may be inaccurate to conclude that this group has experienced a decline in household health expenditure. The group with the highest percentage increase in household health expenditure was the general workers (216 percent), however they started from the lowest base level in 1986. The group with the second largest increase in health expenditure was the clerical/sales workers (53 percent), and they started from a higher base level. Professionals had the third highest percent increase in health expenditure (46 percent) and they started from the highest base in 1986. Unlike their rural counterparts, farm labor in greater Bangkok had a high percent increase in health expenditure (41 percent), although their overall level of health expenditure was the second lowest in 1986 (further details are available in Appendix Table A.5, and Appendix Chart B.8). In summary, even high rates of expenditure growth by low-income groups does not compensate for the overall difference in expenditure between low and high income groups.

Expenditure patterns by employment group for municipalities showed some wide variations. For example, over the 11 year period between 1986 and 1996 health expenditures by three groups declined: those owning land (-0.4%), those mainly renting land (-44.8%), and production workers (-11.0%). The decline in health expenditures by those renting land is unusual as it would be expected that their incomes would rise as the value of property in urban areas increased, and likewise so would their health expenditures. At the other extreme, monthly household expenditures for health increased by 515 percent for general workers, although this group started from the lowest base of expenditure in 1986. The group with the second largest increase in health expenditure was the economically inactive, supporting the other findings from the SES data which suggest this is a group with poorer health status and thus have greater expenditures for health (see Appendix Table A.6 and Appendix Figure B.11).

Expenditure patterns by employment group for the sanitary districts increased for all groups except clerical/sales workers (-5.2%) and the economically inactive (-37.3%). As has been observed in other areas the expenditures of the economically inactive are quite volatile from year to year. The group with the greatest increase in health expenditure was professionals (647.5%), however this may be due to an error in the SES data as the

[15] / The period for this analysis can only be from 1986 to 1996 as the NSO has not prepared figures by employment category for 1998.

expenditure level in 1996 does not follow a general trend of expenditure for this group (see Appendix Table A.7 and Appendix Figure B.12).

Finally, the expenditure patterns for villages show substantial increases in percentage real terms for all groups but clerical/sales workers (-23.3%). The level of expenditure in 1986 in villages is low, but increases by 46.1percent in real terms over the 11 year period. However, this increase would not keep pace with real increases in the cost of medical care, and thus this population requires continuing subsidy for health expenditure (see Appendix Table A.8 and Appendix Figure B.13).

c. Discussion and Recommendations

The richness of the data regarding average monthly household expenditures for health should be analyzed on an annual basis to monitor trends in the expenditures of various groups and their capacity to finance health services, as well as their likely need for public assistance. The NSO should continue to collect information about expenditures for services from public and private providers, not only regarding outpatient and inpatient care. Without these data it will not be possible to measure the impact of the crisis on the shift of households from private sources of care to the public sector, and the consequential burden of this shift on both sectors.

3. Private Sector Provision

There was a rapid expansion of private hospital beds (from 11,000 in 1986 to 35,000 in 1996), private clinics (from 7,100 in 1984 to 15,700 in 1992), and full-time private doctors (from 1,000 in 1986 to 3,500 in 1996) during the early 1990s. Private polyclinics offer general and specialist services, and are often open in the evenings and weekends as much to accommodate the public sector physicians who are moonlighting through practice in the private sector, as for patient convenience. Outpatient ambulatory visits to private clinics increased from 1.5 per patient in 1988, to 4.1 visits per patient in 1993. During this same period, visits to public providers increased by only 5 percent. Private clinics derive 70 percent of their income from the sale of drugs (Taylor Associates, International, 1997). The rapid increase in the size of the private sector resulted in an over-supply of health services. Private hospitals reported occupancy rates between 42 and 60 percent. Even though private hospitals can respond flexibly to the current crisis by reducing staff, closing wards, and using generic drugs, it has been estimated that 35 percent of hospitals will close in the next 2 to 3 years.

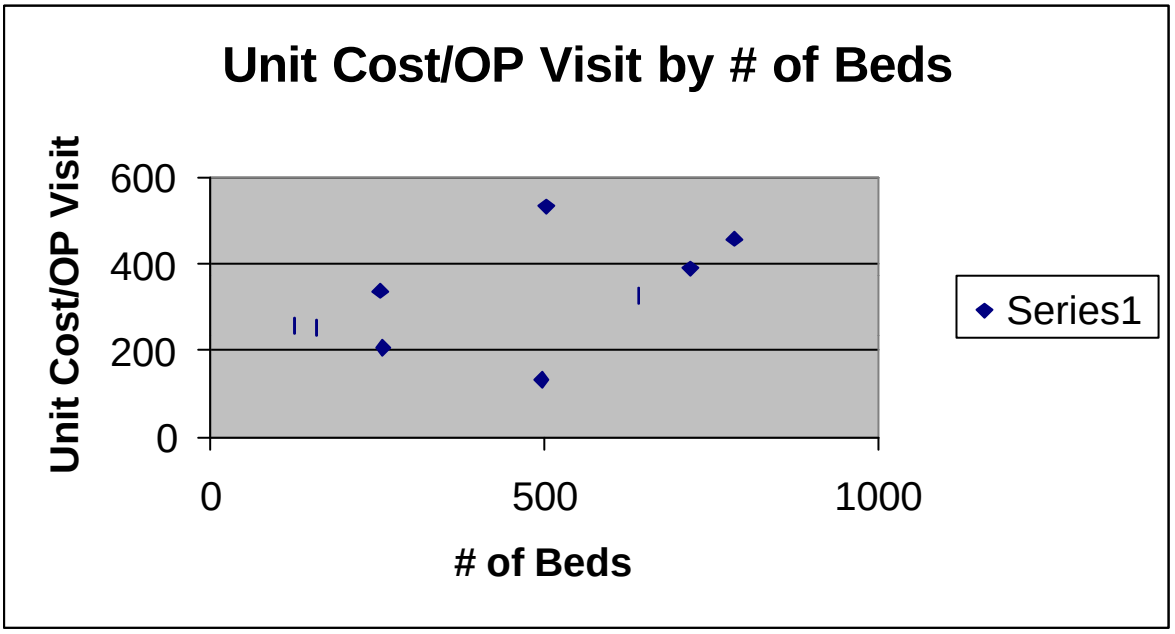
CHAPTER III
COSTS OF PROVIDING SERVICES

While cost accounting methodology seems well understood by academic economists in Thailand, it is less clear that hospital administration and management staff have experience with this approach. Thus, to date there have not been many studies of the costs of providing hospital or primary care services. An analysis of the limited information that is available is provided below.

A. COSTS OF HOSPITAL SERVICES

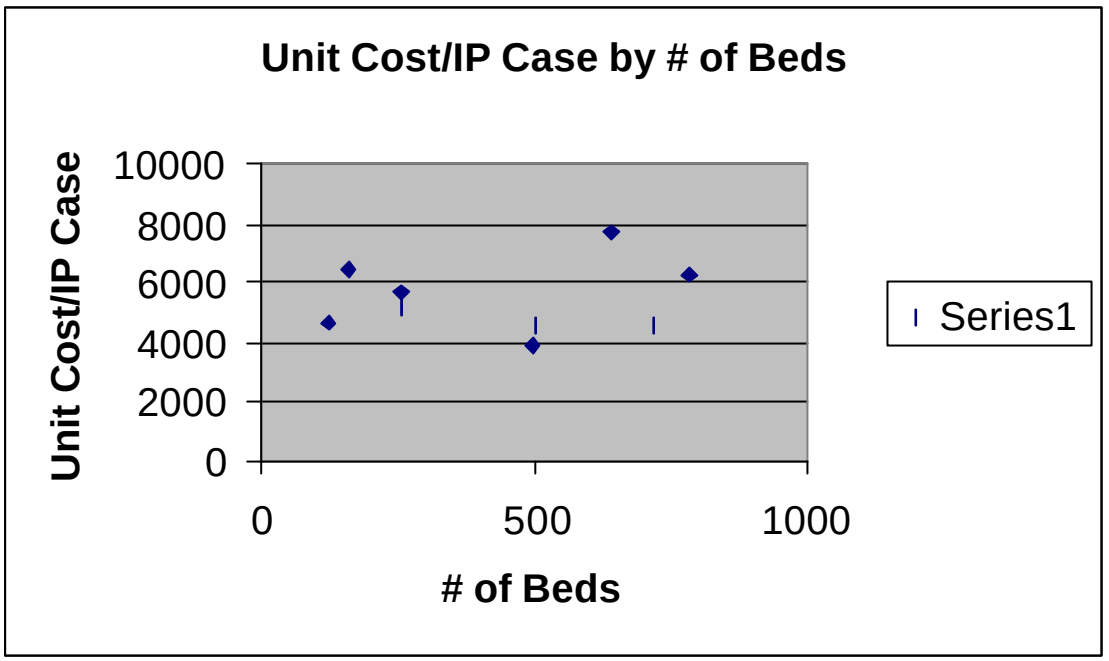
A study was carried out on 9 provincial hospitals regarding the costs of hospital services. Hospital costs were allocated either to outpatient or inpatient services. A plot of the unit cost per out-patient visit against the number of beds suggests some economies of scale for hospitals under 500 beds, but rising average costs for OP visits in the larger hospitals. This may be due to the larger hospitals being staffed with specialists who provide more complex and expensive out-patient treatments (see Figure 3.1).

Figure 3.1:



A similar plot was made of the unit cost per IP case against the number of hospital beds. No conclusive pattern emerges from this limited number of observations (see Figure 3.2).

Figure 3.2:



Only two studies were uncovered with data regarding the breakdown of unit costs by cost center. Hospitals should carryout such studies on a routine basis to assess the relationship between resource use and revenue generation and cross-subsidization. Further, the PHO can compare results from district hospitals to assess efficiency, and the MOPH could evaluate data from provincial hospitals.

B. COSTS OF PRIMARY CARE SERVICES

Two studies have been carried out of health center unit costs. One study looks at the costs of 28 health centers in the Tak Province, 8 in Maeramad District, and 20 in Maesot District. The second study was of 6 health centers in the Mae Wang District. The mean level of out-patient curative visits per health center was from 4,500 to 5,000 baht, and the unit cost ranged from 70 to 80 baht. Preventive services; such as MCH, FP, and EPI; had unit costs from 2 to 3 times higher in the health centers in Tak Province. The higher volume of preventive services in Mae Wang district, as compared to the other districts resulted in a lower unit cost for these services, indicating that there are economies of scale in the provision of these services. The implication is that the health officials in the Tak Province should motivate their staff to offer, and populations to use, more preventive services (see Table 3.1).

Table 3.1: ***Unit Costs for Health Center Services in Three Districts, Thailand***

Type of Program	Unit of Output	TAK PROVINCE					
		Maeramad (8 HCs) Output (Mean/Ctr)	Unit Cost	Maesot (20 HCs) Output (Mean/Ctr)	Unit Cost	Maewang (6 HCs) Output (Mean/Ctr)	Unit Cost
Curative Services	Visits	4,527	79.62	4,974	71.86	4,799	68.90
MCH	Visits	173	336.29	306	249.71	260	189.94
FP	Visits	611	155.08	769	150.69	1,578	74.10
EPI	Visits	345	235.56	405	178.44	743	62.22
Health Education	Session					431	129.87
School Health	Session	983	37.16	425	96.06	371	131.68
Nutrition	Session	260	179.09	728	55.62		
Support to PHC Ctr	Center					8	14,853.79
Sanitation, Disease Ctntrl	Toilet Constr.					721	203.94

Notes: Study in Mae Wang took a cost accounting approach and included capital depreciation.

Sources: Mae Wang: Kavinum, S. et.al. (1998) Cost Analysis of Patients Services at Health Centers in Mae Wang District, Chiang Mai Province, term paper, MPH program, Chiang Mai University

CHAPTER IV
REVENUE FROM SERVICE PROVISION

A. FEE SETTING POLICY

The MOPH provides guidelines on the range of charges that can be collected for different investigative and surgical procedures. These levels are based on the principles of full cost recovery for non-personnel costs, as well as on patients' ability to pay. Fees collected are retained by the hospital, and can be used for labor and material expenses.

Information does not exist on how the private sector sets fees, but presumably they are based on costs plus a mark-up for profit, as well as the prices set by competitors existing in the market.

B. COST RECOVERY

A major study of the cost recovery experience of 89 provincial public hospitals for the years 1988 to 1990, and for 350 district hospitals carried out for the years 1987 to 1988 (Tangcharoensathien, Supachutikul, Nittayaramphong, 1992) [16]/ [17]/.

1. Provincial Hospitals

The study compared costs and revenues aggregated over all 89 provincial hospitals. Net revenue (or the actual revenue that the hospital collected as compared to actual charges which include charges that were not paid) was 48 to 51 percent of total operating costs, and 86 to 91 percent of non-labor operating costs. Thus provincial hospitals are generating a significant amount of their budget from user fees. Accrual revenue (the amount of revenue the hospital expects to collect for services provided in a particular year) ranged from 64 to 71 percent of total operating costs, and from 115 to 127 percent of non-labor operating costs. Assuming hospitals can collect this revenue, this makes the revenue from user fees even more significant for provincial hospitals [18]/ (see Table 4.1).

[16] / This study noted that no research had been conducted on the fee structure policies and cost recovery experiences of private hospitals, and that issue required urgent research.

[17] / No studies were found that compared fees/charges with the costs of producing various services by the hospitals.

[18] / It would be interesting to collect the same data for the same hospitals for a period during the middle-late part of the "bubble economy" to see if hospitals were becoming more or less reliant on user fees, and also for the past year to see what impact, if any, the economic crisis has had on the level of financial support from user fees for hospitals

Table 4.1:*Comparisons of Revenues to Costs, 89 Provincial Hospitals, Thailand, 1988 - 1990*

	FY 1988	FY1989	FY1990
Operating Costs	4.468.277.754	5,356,529,793	6,272,739,136
Operating Cost w/o Labor	2,492,586,071	2,975,268,959	3,306,424,782
Net Revenue	2,262,597,881	2,567,673,746	3,024,044,954
% of Op. Cost	50.6%	47.9%	48.2%
% of Op. Cost w/o Labor	90.8%	86.3%	91.5%
Accrual Revenue	3,159,679,881	3,418,873,746	3,908,835,496
% of Op. Cost	70.7%	63.8%	62.3%
% of Op. Cost w/o Labor	126.8%	114.9%	118.2%

More recent data for 1994 through 1996 continue to support the finding that about 50 percent of total provincial operating costs are financed by user fees (see Table 4.2).

Table 4.2: *Comparison of Recurrent Expenditure and Non-budgetaryRevenue from Provincial Hospitals in the Entire Kingdom, Thailand, 1994 – 1996*

	Recurrent Expenditure	Non-budgetary Revenue	Percent
1994	11,719,076,890	5,547,748,062	47.3%
1995	15,281,326,598	6,502,784,444	42.6%
1996	15,939,475,584	8,105,393,747	50.9%

Source: Bureau of Policy and Planning, MOPH.

A study of the Chiangrai Provincial Hospital found differing rates of cost recovery for different parts of the hospital. The pharmacy generated revenues equivalent to 115 percent of total pharmacy costs (125 percent of materials' costs), and radiology generated revenues equal to 116 percent of total radiology department costs (362 percent of materials' costs). On the other hand, the Pathology Department generated revenue only equal to 53 percent of total costs (95 percent of materials' costs), and the Surgical Department generated only 40 percent of their total costs (but 111 percent of their materials costs). Thus some ancillary departments are cross-subsidizing the total costs of other hospital departments [19] /.

[19] / One would have to see the entire cost study to determine the complete patterns of cross-subsidization between departments. As the health care system moves further away from fees-for-service, and more towards capitation based payment, the emphasis will shift from cost accounting studies to allow for comparison of costs with fees, to studies of the costs of treating cases by diagnostic group. Currrently there is little research on the relationship, if any, between fees/charges and the actual costs of providing care. This makes estimation of DRG rates difficult.

2. District Hospitals

The Chiangrai study looked at the cost recovery experience of 350 district hospitals during 1987 and 1988. Compared to provincial hospitals, district hospitals raised nearly the same percent of total operating costs (~ 50%) and operating costs without labor (90%). Accrual revenue is a higher percent of operating costs, both with and without labor, suggesting that district hospitals either provide more waivers or do not have as good a collections process or staff in comparison with provincial hospitals (see Table 4.3).

Table 4.3: *Comparison of Revenues to Costs, 350 District Hospitals, Thailand, 1987 - 1988*

	FY 1987	FY 1988
Operating Costs	1,781,362,000	2,050,304,000
Operating Costs w/o Labor	1,025,915,000	1,187,612,000
Net Revenue	937,608,000	1,028,179,000
% of Op. Costs	52.6%	50.2%
% of Op. Costs w/o Labor	91.4%	86.6%
Accrual Revenue	1,373,717,000	1,470,560,000
% of Op. Costs	77.1%	71.7%
% of Op. Costs w/o Labor	133.9%	123.8%

More recent data show that fee revenue covers a lower proportion of district hospital recurrent expenditure, about 40 percent (see Table 4.4).

Table 4.4: *Comparison of Recurrent Expenditure and Non-budgetary Revenue from District Hospitals in the Entire Kingdom, Thailand, 1994 – 1996*

	Recurrent Expenditure	Non-budgetary Revenue	Percent
1994	6,810,066,157	2,700,933,754	39.7%
1995	8,421,313,754	3,050,163,483	36.2%
1996	10,521,453,674	4,112,252,712	39.1%

3. Health Centers

Studies cited earlier about the unit costs of health centers in three districts did not include any information on the level of fees charged per service. Thus it is not possible to say anything about cost recovery at the health center level.

CHAPTER V
HEALTH INSURANCE SCHEMES

A. COMPARATIVE DESCRIPTION OF SCHEMES

There are five major comprehensive subsidized health insurance schemes in Thailand. In addition, there are special insurance programs for work (Workman's Compensation Scheme - WCS) and traffic (Traffic Accident Protection Scheme) related accidents. The five major comprehensive programs are the:

Civil Servants Medical Benefits Scheme (CSMBS)
Social Security Scheme (SSS)
Voluntary Health Card Scheme (VHCS)
Low-income Card Scheme (LICS)
Private Health Insurance

Altogether these schemes are estimated to provide some health insurance coverage to 46 million people, or about 76 percent of Thailand's population. The three following tables summarize the key features of the programs, such as who and how many are the beneficiaries, what benefits are covered, what is the sources and level of premiums, what is the average amount paid for care per insured, what is the provider payment mechanism, and what are average utilization rates of beneficiaries.

Table 5.1 below shows that the schemes vary in terms of whether they are compulsory or voluntary, the sources of funds, and the Ministry managing the insurance program. Given the plethora of programs, the team suggests that one approach to bringing more coherence to insurance financing would be to standardize benefit packages, and provider payment mechanisms, rather than to try to shift the financing for health under one Ministry.

Table 5.1: *Characteristics of Health Insurance Schemes, Thailand*

INSURANC PROGRAM	SCHEME NATURE	COVERAGE ('000,000)	COVERAGE (%)	POPULATION CHARACTERISTICS	SOURCE OF FUNDS	FINANCE BODY
CSMBS	Fringe Benefit	6.6	11%	Civil Servants	Gnrl Tax Revenue	MOF
SSS/WCS	Compulsory	4.8	8%	Employees in Firms Larger than 10 Persons	1.5% ea. Wages Empr.&Employee	SSO
VHCS	Voluntary	6.0	10%	Near Poor	MOPH Fund	MOPH
LICS	Social Welfare	27.0	45%	Indigent, Children < 12, Elderly, Veterans, Handicapped, Religious & Political Leaders	MOPH Fund	MOPH
PRIVATE	Voluntary	1.2	2%		Premium	Private Cos.
TOTAL		50.4	76%			

Sources:
Pannarunothai and Tangcharoensathien (1993).
Supachutikul (1996).
Songkhla et.al. (June 28, 1997).

Table 5.2 shows the variation in the benefits covered under the different insurance programs. At present, the CSMBS has suspended use of private facilities for CSMBS members, so only those covered by the SSS can opt to register with private hospitals or networks. Some hospitals are quite keen to register SSS patients as this then forms a base of income for their operations.

Table 5.3 provides information comparing the insurance schemes' payment mechanisms, copayment requirements, and utilization rates under each program. The table shows that under fee-for-service reimbursement, patients with CSMBS coverage use many more out-patient and in-patient services than those covered by programs. Those covered with SSS or VHCS capitation have roughly equal the number of outpatient visits per capita per year, but the SSS population have lower admissions, although longer lengths of stay. This may reflect the fact that the SSS population are mostly healthy workers. Those who voluntarily select to purchase the VHCS card, rather than pay fee-for-service, may be those who experience more illness, i.e. adverse selection. Those covered under the LICS use fewer services than all other groups. The government provides a lower subsidy for the care of this population, and this may reflect on non-insurance barriers to care for the low-income population, e.g. transportation costs.

Table 5.2: *Benefits of Insurance Packages in Thailand*

INSURNCE PROGRAM	AMBULA-TORY	INPATNT	PROVIDR CHOICE	CASH BENEFIT	INCLUSIVE CONDITION	MATER-NITY	ANNUAL EXAM	PREVNTN PROMOTN	SERVICE NOT COVRD
CSMBS	Public Only	Public & Private	Free	No	All	Yes	Yes	Yes	Special RN
SSS	Public & Private	Public & Private	Contract Hosp/Net-Work	Yes	Non-work related ill-ness	No	No	Hlth Educ. Immunizn	Pvt. Bed Special RN
WCS	Public & Private	Public & Private	Free	Yes	Work related Illness/injury	No	No	No	None
VHCS	Public	Public	Requires Referral	No	All	Yes	Possible	Possible	Pvt. Bed
LICS	Public	Public	Requires Referral	No	All	Yes	No	Limited	Special RN Pvt. Bed
PRIVATE	Public & Private	Public & Private	Free	Usually No	According to Contract	Varies	Varies	Varies	Varies

Sources:
Pannarunothai, S. and Tangcharoensathien, V. (1993).
Supachutikul, A. (1996)

Table 5.3: *Source of Funds, Insurance Payment Mechanism, and Utilization of Services, Thailand, 1996*

INSURNCE PROGRAM	PAYMENT MECHANSM	COPAYMT	AVE EXP/ CAP/YR	OP VISITS/ CAPITA	ADMISSN PER 100	ALOS * (days)	SOURCE OF CARE
CSMBS	Fee-for-Service	IP at Private Hospital	>1781	5.5	13.6	11.9 5.1	Public Private
SSS	Capitation	Maternity,	712	1.4	2.6	5.6	Public
		Emergency				4.0	private
WCS	Fee-for-Service	If over B30,000	96	0.04	0.6	7.0	
		ceiling					
VHCS	Capitation	None	~190	1.7	5.8	4.3	
LICS	Global Budget	None	<225	0.7	3	5.1	
PRIVATE	Fee-for-Service	Almost None	1667	n.a.	n.a.	n.a.	
OVERALL	Multiple		n.a.	2	5 to 6	n.a.	
POP. RATE							

Sources:
Supachutikul, A. Gilson, L., and Tangcharoensathien (no date)
Supachutikul, A. (July 1996)
(*) from Songkhla, et.al. (June 28, 1997).

B. CIVIL SERVANT MEDICAL BENEFIT SCHEME

1. Background

The Civil Servant Medical Benefit Scheme (CSMBS) is a fringe benefit which generously covers all current government officers and permanent employees and pensioners (including their parents, spouse, and up to 3 children less than 18 years old). The scheme is financed totally through general tax revenue (i.e. Central Budget held by MOF Comptroller Generals' Department, MOF-CGD). The CSMBS operates under a fee-for-service reimbursement model. There is almost no co-payment for out-patient services (OP) and in-patient services (IP) from public providers, but approximately a 50 percent copayment for IP care in private sector.

Table 5.4 and the accompanying graph show the growth of CSMBS expenditure in nominal terms from 1988 to 1998. The pie chart shows that inpatient care accounts for about 48 percent of the total, outpatient care 30 percent, and care for pensioners 12 percent.

Table 5.4: *Total CSMBS Expenditure by Type, Thailand, 1988-98 at Current Price*

Type	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
1. OP	1,306.21	1,485.29	1,728.98	2,021.81	2,337.19	2,766.48	3,373.89	3,971.52	4,821.94	5624.92	5,865.80
% change		14	16	17	16	18	22	18	21	17	4%
2. IP	1,849.70	2,035.63	2,586.57	3,105.57	3,626.95	5,140.03	6,580.11	7,184.42	8,761.27	9,877.98	10,574.16
% changes		10	27	20	17	42	28	9	22	13	7%
Pub Hosp	1,500.66	1,634.65	2,053.58	2,452.58	2,781.81	3,869.71	4,874.63	5,476.42	6,660.17	7520.33	8,772.20
% changes		9	26	19	13	39	26	12	22	13	17%
Private Hosp	349.04	400.98	532.99	653.01	845.01	1,270.32	1,705.48	1,708	2,101.10	2357.65	1,821.96
% changes		15	33	23	29	50	34	0	23	12	-23%
Private share (%)	19	20	21	21	23	25	26	24	24	24	17.23
3. Total expense	3,155.91	3,520.92	4,315.55	5,127.30	5,854.14	7,906.14	9,954.06	11,155.95	13,587.21	15,502.90	16,439.96
% changes		12	23	19	16	33	26	12	22	14	6%

Note: There were seven months (March-September) of demand side intervention in 1998.

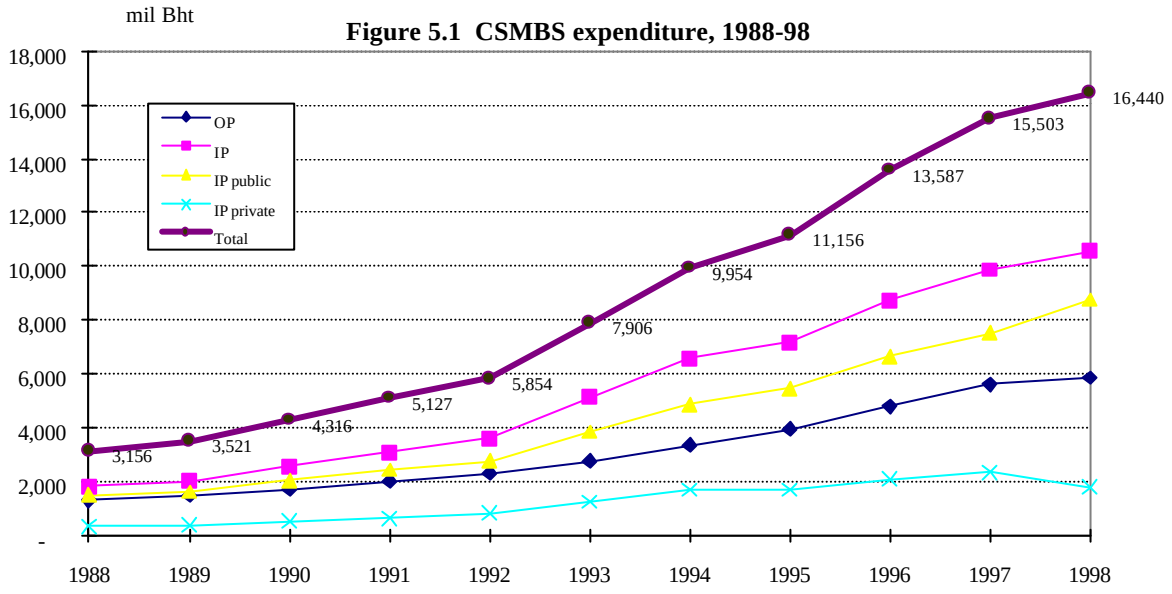
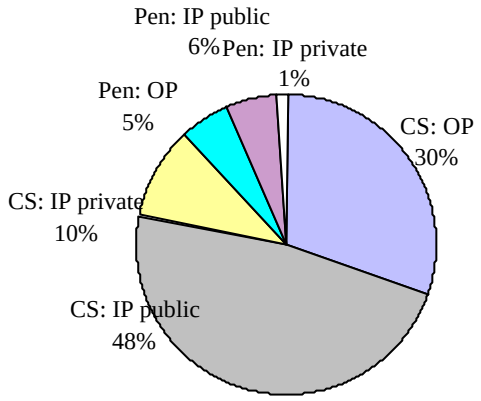


Figure 5.2 CSMBS 1998 expenditure, current officials and pensioners
Total 16,460 mil Bht



2. Problems With the Current Scheme

The CSMBS suffers from organizational and managerial problems. Specifically, the MOF-CGD acts passively as a conduit of finance, not as a proactive health care purchaser. There is almost no monitoring mechanism nor intervention to suppress fraud. The Auditor General and the Corruption Suppression Commission can filter only a small number of cases of fraud. In addition, there is no beneficiary database, therefore there are eligibility and entitlement identification problems. HSRI estimates there was a total of 7.02 million beneficiaries in 1996 including 1.8 million government employees.

A second area of problems is related to inefficiency. Cost escalation is very evident, ~14percent p.a. in real terms, despite no increase in the number of government employees. Fraudulent claims are submitted, shifting unclaimable private sector OP services to claimable IP services. There are incentives to maximally charge CSMBS beneficiaries in public hospitals. These collections go to hospital non-budgetary revenue, which is further used to cross-subsidize the inadequate budget for free care programs to elderly, low-income, children under 12 years old. Data show that CSMBS patients have significantly longer stays than other patients, approximately 9 to 12 days compared to 3 to 5 days among the general population, controlled for age group. Finally, there is an inequitable budget subsidy per capita compared to LICS, the CSMBS is eight times higher (2,200 baht as compared to 273 baht).

3. Description and Evaluation of Current Reforms

Prior to the crisis, there were two sets of activities being followed to reform the CSMBS. First were activities in basic research. The MOPH Health Planning Division surveyed the CSMBS charge structure of public and private providers in Bangkok. HSRI conducted a comprehensive morbidity survey in 1995 among CSMBS beneficiaries (current employee + dependents; pensioners + dependents). HSRI also surveyed the charge structure of public and private providers outside Bangkok in 1996.

The second activity was for HSRI to appoint a Task Force made up of representatives from the Ministry of Finance (MOF), Civil Service Commission (CSC), and Budget Bureau. The main tasks of this committee are to:

- Develop a beneficiary database.
- Replace of fee for service reimbursement model by the contract model.
- Develop a Civil Servant Health Fund (CSHF), which would be earmarked for (1) ambulatory care, (2) inpatient services, (3) emergency services sought from a registered hospital, (4) high cost services, (5) health promotion, (6) management, R&D and contingencies.
- Estimate an age-adjusted capitation rate for outpatient services within the budget ceiling. There is a requirement for beneficiaries to register with free choice to public and private hospitals on an annual basis (initially it was intended to avoid registration with hospitals but to register with primary care providers, but Primary Medical Care (PMC) in Thailand does not widely exist).
- Utilize case-mix information from modified US-DRG weights to determine payment per DRG weight (in each month or quarter) to providers within the inpatient budget ceiling. This would allow for free choice of public or private provider.
- Conduct a financial scenario analysis to determine if it would be feasible within a 14,000 million baht budget per annum. to sustain services within this budget limit for 4 to 5 years.

The economic crisis in July 1997 prompted the Finance Minister and Director General of the Comptroller General's Department to embark upon several demand side interventions as short term, interim strategies for FY98, and these were endorsed by the Cabinet in February 1998. The major contents of these strategies are:

- Full copayment for the cost of non-essential drugs with some exceptions.
- Copayment for extra-days for private room and board aiming at improving efficient use of inpatient wards.
- Termination of the use of private inpatient care. This provision required an amendment by Royal Decree. Strong lobbies prevented amendment of the Decree.
- Doctors' fees in evening clinics in public hospitals would not be reimbursed.

In March 1998, HSRI appointed a CSMBS reform committee to discuss and finalize major contents of the CSHF Bill. By October 1998 (FY99) the CSHF was to have been introduced. However, this did not come about as the CGD was reluctant to invest in MIS development (70 to 100 million baht) during FY98. The interim demand side measures are likely to continue through 1999 - 2000, as CGD may be satisfied with interim measures. Evaluation of these interim measures is planned under the HSRI-TRF- SRS program.

None of the reforms proposed introduce the concept of limiting coverage. However, the introduction of capitation for out-patient services will limit patient choice to some extent to registered providers, and may jeopardize the quality of care if the CSHF does not have a strong monitoring capacity. Registering with a provider will improve the continuity of care.

Capitation also has the potential for lowering administrative costs. Separation of paying ambulatory from inpatient care may have incentives for ambulatory care providers to over-refer inpatient care. On the in-patient side, patients will have free access for care from either public or private sources. It was first planned that providers would be reimbursed on a DRG-basis within a global budget. Case-mix information using DRGs might stimulate over-reporting, however, the budget ceiling for inpatient care will keep expenditure within control. Subsequent proposals are to reimburse on an all inclusive (IP + OP) capitation basis. Either of the proposed changes in payment mechanisms will effectively halt the ever increasing pattern of expenditure. Further, it will help to bring about equity in financing, as CSMBS will halt the growth of the per capita budget subsidy, whereas the government budget subsidies in other health insurance schemes will gradually increase. Technical efficiency will be gained only if the CSHF Office is acting as a proactive purchaser of care.

The main contents of the cost control interventions are summarized in Table 5.5.

Table 5.5: *Major Contents of two Intervention Phases*

Pre-intervention (5m.) 1 October 97- 28 February 98	Intervention 1 (3m.) March 1 to May 31, 1998	Intervention 2 - June 1, 1998 onwards
Public OP services : no copay	• copay for NED drugs	• same as Intervention 1: copay for NED drugs
Public IP services: no copay	• Copay for NED drugs • Copay for extra days in private room by two age groups as followed : 1. <60 years: copay 300 Baht per day for day 5-9 and non-reimbursable for day 10 onward 2. >60 years: copay 300 Baht per day for day 7-13 and non-reimbursable for day 14 onwards	• Copay for NED drugs • Copay for extra days in private room : Copay 600 Baht per day for day 14 onwards regardless of age group of patients
Private IP services *: 1. room and board 600 Bht/day no limits of length of stay, 2. medical appliance according to price list laid down by MOF 3. Drug, surgeries, laboratories, etc. is half reimbursed and not >3,000 Baht per admission	• Copay for NED drug • Apply the above copay for extra-days similar to public IP.	• Copay for NED drug • Apply the above copay for extra-days, similar to public IP.

Note: * private OP services is not reimbursable at all.

4. Approach and Findings

a. Study of Impact of Demand Side Measures

The MOF introduced demand side measures, endorsed through the Cabinet Resolution in February 1998, concerning full payment for non-essential drugs, copayment for room and board beyond the ceiling, and the termination of access to IP services in private hospitals. Although the resolution was enforced starting March 1998, we assume that the full effect was not achieved until April 1998. A brief assessment of was done of the impact of the demand side measures in a Northeastern province of Khon Kaen.

Table 5.6: *Average Monthly Expenditure (million baht) Before and After Copayment Intervention, Khon Kaen, FY1998*

	OP offi-cials	IP public offi-cials	IP priv offi-cials	IP offi-cials	OP pen-sion	IP public pen-sion	IP priv pen-sion	IP pen-sion	Total
Whole country									
Average Oct-Mar	469.1	684.6	175.7	860.3	80.6	75.1	19.5	94.6	1,504.5
Average Apr-Aug	361.6	604.6	98.8	703.4	64.1	61.4	11.0	72.4	1,213.8
Changes in Baht	-107.5	-80	-76.9	-156.9	-16.5	-13.7	-8.5	-22.2	-290.7
% changes	-22.9	-11.7	-43.8	-18.2	-20.5	-18.3	-52.8	-23.5	-32.8
Khon Kaen									
Average Oct-Mar	11.2	29.2	1.0	30.2	0.7	2.0	0.079	2.079	44.2
Average April-Aug	7.4	27.0	0.5	27.5	0.6	2.1	0.075	2.175	37.7
Changes in Baht	-3.8	-2.2	-0.5	-2.7	-0.1	+0.1	-0.004	+0.096	-6.5
%changes	-33.8	-7.6	-45.3	-8.9	-15.4	+9.3	-4.5	+4.6	-14.7

Source: MOF-CGD

If there was no demand side intervention, an annual expenditure in 1998 was estimated as 1,504.5 * 12 months = 18,053.7 million baht.
If the demand side intervention was implemented for the whole year, the estimated expenditure would be 1,213.8 * 12 months = 14,565 million baht.
However, for the whole year the actual expenditure would be around (1,504.5 * 6) + (1,213.8 * 6) = 16,307.6 million in 1998 FY.

In Table 5.6, the 1,504.5 million baht per month during the period of October 1997 to March 1998 must be interpreted with care. There was no regular disbursement of claims during that period due to cash flow constraints in CGD and Provincial Finance Office due to a condition in the first Letter of Intent between the RTG and IMF that by the end of December 1997, the government would achieve a public revenue surplus of 1 percent GDP.

After adjustment for the 12 month period during April 1997 to March 1998, the average expenditure per month before the intervention has gone down to 1,427 million baht. Compared with the demand side intervention period of April to August 1998 (1,214 million baht per month) the saving will be **14.95 percent.** If we estimate cost saving from copayment and termination of private IP care based on three month moving average technique for the period of 1997-98, the

saving as a result of the intervention is around **12.96 percent.** Thus, it can be concluded that the overall short term (five month period of intervention) cost saving is between 13 to 15 percent [20]/.

Our field work in Khon Kaen provided several major impressions:

- Practically there are no payments by beneficiaries for non-ED in MOPH hospitals, and not very substantial ones in non-MOPH public hospitals. The MOPH ruled in February 1998 that items in the hospital drug list would be trimmed down according to size and level and increase the proportion of ED. Thus, the revised MOPH hospital drug list is the most efficient list, then drugs prescribed within hospital list is essential (although there is some non-ED) and *de facto* the MOPH hospital list is reimbursable list.
- Copayment for extra-room and board has significant impact on shorter LOS and resulted in the discharge the non-dischargeable cases (e.g. stroke and other chronic conditions) in public hospitals.
- There is an reduction in occupancy rate of private wards and average LOS.
- Suggests that the termination the use of private IP significantly reduces the overall expenditure whereby no increase in expenditure for IP in public hospitals (see Table 5.7).

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[20] / Important formulae to assess the impact of copayment interventions:

1. OP visits*baht per visit before - OP visit*baht per visit after = Δ OP expenditures.
2. Admissions*baht per admission before - admissions*baht per case after = Δ IP expenditures.

Therefore

1. Δ OP visits = Δ OP expenditures / Δ baht per OP visit
2. Δ admissions = Δ IP expenditures / Δ baht per admission
   Changes in number of OP visits and admission are then easily assessed through the above formula,
3. Δ baht per visit = Δ drugs + Δ other medical services
4. Δ baht per admission = Δ room and board + Δ drugs + Δ other medical services
   What determines changes in claim per visit and per admission is assessed through its charge profile (drug, room and board and other medical services).

Table 5.7: *Public hospital IP charge profiles, Khon Kaen, FY 1998*

	(5m) Oct97-28 Feb98	(3m) Mar - May 98	(3m) Jun - Aug 98
I. Current officers			
LOS (days)	7.29	5.00	6.00
Charge profiles			
R&B %	19%	19%	19%
Drug %	25%	27%	26%
Medical services %	49%	51%	53%
Others %	7%	3%	1%
Charge (Bht per admission)	14,344	9,397	10,704
Claim (Bht per admission)	14,344	9,397	10,704
Copay R&B (Bht / adm.)	0	128	8 cases LOS>=13
Copay Drug (Bht / adm.)	na	na	Na
Total copay (Bht/adm.)	0	128	Na
II. Pensioners			
LOS	10.16	6.00	7.00
Charge profiles			
R&B %	20%	19%	18%
Drug %	30%	26%	32%
Medical services %	46%	51%	46%
Others %	4%	5%	3%
Charge (Bht per admission)	20,838	14,499	17,241
Claim (Bht per admission)	20,838	14,499	17,241
Copay R&B (Bht / adm.)	0	155	8 cases LOS>=13
Copay Drug (Bht / adm.)	na	na	Na
Total copay (Bht/adm.)	0	155	Na

Table 5.7 shows a significant reduction in ALOS comparing before intervention (7.29 days) and March to May 1998 - 5 days; and June to August 1998 - 6 days for current officers and pensioners from 10.16 to 6 and 7 days respectively.

Claims per admission also reduced significantly from 14,344 to 9,397 and 10,704 baht among current officers in the three periods and 20,838 to 14,499 and 17,241 baht among pensioners in these periods.

As discussed above, there is no copayment for non-essential drugs. Copayment for extra-room and board is insignificant, as patients were discharged before the ceiling.

b. Concensus Selection of Payment Mechanism for CSMBS

A process of reviewing payment mechanisms for CSMBS outpatient (OP) and inpatient (IP) services was undertaken during the project period. First the options were identified, along with their strengths, weaknesses, and the consequences of adopting them.

There were 7 OP payment options considered by the CSMBS reform committee [21]/:

Fee for service Reimbursement Model
Fee for service + copayment (reimbursement model)
Termination of OP coverage - replaced by active health promotion activities
Maximal Household Liability
Maximal Scheme Liability
Capitation, possibly age adjusted
Global budgeting- point system

Table 5.8: *Payment Options for Ambulatory Care for CSMBS Beneficiaries*

Options	Major contents	Provider	Strength	Weaknesses	Consequences
❶ Fee for service Reimbursement Model	Access to public care, reimbursement from Comp Gen Dept or Prov Finance Office accordingly.	Public outlets	1. Major source of Public hospitals non-budget revenue 2. Cross subsidy to other schemes, inadequate budget	1. Limited choice 2. Distortion of government hospital financing	1. Expenditure gross increase by 14-22% per year, likely due to either use rate or charges, or both, no one knows
❷ Fee for service + co-payment (reimbursement model)	1. Status quo but introduce copayment, e.g. for drug or fix fee 2. How much copay at public and private?	public and private	1. Access to private care is welcome by beneficiaries 2. prevent unnecessary use of service	1. Possible resistance to copayment 2. penalise the chronic cases	1. Copayment relates to ability to pay, esp. among pensioners 2. possible exemption copayment for pensioners 3. equal copay at public and private, trend of using private is higher

[21]/ Committee members consist of major stakeholders: MOF-CGD, NESDB, Budget Bureau, MOPH, University Hospital, SSO, CSC Office, insurance actuaries, TDRI and HSRI. HSRI researchers are secretariat to the committee proposing technical working papers to be discussed, endorsed or adopted by the Committee.

Options	Major contents	Provider	Strength	Weaknesses	Consequences
❸ Termination of OP coverage, active health promotion activities for beneficiaries	1. Only inpatient is covered 2. Health promotion activities are more cost effective	--	1. Cost saving to the Scheme 30-40% of total expenditure 2. promotion of healthy life style and better health outcome	1. strong resistance by beneficiaries 2. squeeze and balloon effect → increase IP expenses. 3. major impact to pensioners	
❹ maximal household liability	1. Set a ceiling (differential for health need) of expenditure borne by beneficiaries, beyond the ceiling is paid by the Scheme 2. Prerequisite are database on beneficiaries health need and expenditure information at household level. We need a standard price between public and private if access to private care is granted	Public and private	1. promotion of self responsibility for the first X Baht. X is lower for higher health needs → equity. 2. Improved rational use of health resources	1. Possible resistance 2. required database on the household liability 3. If no standard price, possible to easily touch the ceiling when using private sector. 4. No influence on provider behaviour who are supreme commander of resources. 5. differential household liability based on health needs and household size is not easily	1. possible abuse by beneficiaries
❺ Maximal Scheme liability	1. Vice versa of OPTION 4 with similar prerequisite, 2. This option does not requires	Public and private	1. easy to manage 2. differential ceiling by health needs → equity 3. Automatic rational use of	1. No influence on provider behaviour who are supreme commander of resources. 2. Possible	

Options	Major contents	Provider	Strength	Weaknesses	Consequences
	standard charge, as beneficiaries will take good care of themselves, not to touch the ceiling unnecessarily.		resource by beneficiary 4. Significant cost saving to the Scheme, but can not achieve overall efficiency objective	resistance 3. require technical input to set up differential liability based on health needs	
❻ capitation without copayment	1. Registration with preferred provider 2. Possible to calculate age adjusted capitation rate	public and private	1. Predictable Scheme expenditure 2. Regular flow of revenue to providers 3. Provoke competition between public and private providers 4. Admin cost is low, higher technical efficiency, but when audit mechanism is introduced, it could consume substantial resource. 5. Possible to stimulate the development of primary medical care	1. Cost quality trade off 2. Natural monopoly problem → no competition 3. Over referral from ambulatory to inpatient care, if IP is paid differently.	
❼ Global budgeting	Modified point system: e.g. severity of care (simple, moderate, severe) x nature of case (simple episodic,	Public and private	1. no registration is required, free choice 2. Potential cost containment	1. Poor continuity of care 2. require excellent database and information system.	

Options	Major contents	Provider	Strength	Weaknesses	Consequences
	accident, chronic conditions), central processing unit produce total points each providers rendered.				

The same reform committee considered 6 options for IP payment reform:

Status quo: fee for service reimbursement model at public hospitals and copayment in private hospitals
Per day (per diem)
Diagnostic Related Group (DRG)
Global budgeting per case basis
Capitation possible age adjusted
Combination of Global Budget, using DRG as means of payment

Table 5.9: *Payment Options for Inpatient Care - CSMBS*

Options / technical detail	Advantages	Disadvantages	Consequence
1. Status quo: fee for service retrospective reimbursement at public hospitals, quite generous almost no copayment, but ~50% copayment in private hospitals	• Higher consumer satisfaction albeit inefficient • Public providers are happy as it is major source of non-budgetary income	• Open ended, less efficient • Fraud claim, no effective filtering mechanism • As there is no price tag leads to unnecessary longer stay and over-consumption of drugs, esp. expensive original drugs	• Pressure to adjust benefit package, room and board and other medical supplies rates endlessly. • Problem in cost containment, financial burden to the Scheme, possible abuses and false claims by both public and private.
2. Per day (per diem)	• Easy to manage • Possible to adjust differential rates for longer stay or capping.	• Open ended expenditure, likely to automatically increase LOS, inefficient use of bed • Don't reflect case	• Could design per diem feature to pay for optimal LOS. • Better control cost than fee for service.

Options / technical detail	Advantages	Disadvantages	Consequence
		mix severity	
3. Diagnostic Related Group (DRG)	• Better reflect case mix severity	• Costly to manage and data handling, need information and extensive database • Still open ended expenditure if adopted purely payment per specific DRG → DRG Creeping	• DRG creeping, false reporting, repeated admission → cost escalation. Difficult to contain cost in long term. • Require data management skill
4. Global budgeting : base on budget per case of patient	• Close ended expenditure • Easy to manage	• Couldn't better reflect case mix severity • Incentive to admit less severe cases	• Better contain costs. • Cost quality trade-off is likely if auditing mechanism and punitive measures are weak.
5. Capitation : possible to employ age adjust capitation rate based on admission rate by age group and adjustment for chronic conditions.	• Close ended expenditure • Easy to manage	• Couldn't better reflect case mix severity • Bad name labeled under Social Security Scheme	• Better contain costs. • Cost quality trade-off problem, under-servicing and poor quality of care • Need strong quality control
6. Combination of Global Budget using DRG weight as case mix indicators to pay back hospitals	• Closed ended expenditure • Reflect better case mix severity	• If budget ceiling is too low, quality of care is jeopardized • Potential to abuse by over/false reporting of DRG weights - causing gradual reduction of payment per DRG weight.	• required management skill and information system. • The separation of payment for ambulatory and inpatient leads to over-referral of cased under capitation system to hospitalization

In addition to reviewing the strengths and weaknesses of various payment reforms the committee also selected nine financing policy objectives whereby the payment options could be evaluated. The objectives are:

1. Accessibility
2. Consumer satisfaction

3. Choices between public or private providers
4. Technical efficiency
5. Allocative efficiency
6. Cost containment
7. Quality of care
8. Continuity of care
9. Stimulation the development of primary medical care (PMC)

Two rounds using a Delphi scoring system (1-100 score) were employed by 15 committee members in March 1997 (see Table 5.10). After scoring in the second round, a voting of relative merit (1-5 score) of each nine policy objectives were done (Table 5.11). Committee members are requested to provide ranking 1-3 to verify result of quantitative assessments (Table 5.12).

Table 5.10; *Mean Vote by 15 Committee Members, Maximum Score 100 if Mechanism Totally Achieved the Policy Objectives*

	POLICY OBJECTIVES								
	Access	Satisfac	Choice	Tech eff	Alloc eff	Cost contain	Qual	Cont care	PMC
Option 1	67.5	65.5	63.5	45	43	35	65	60.5	32.5
Option 2	73	45.5	86	39.5	51.5	56	69.3	59	30.3
Option 3	50.5	41.5	71.5	67	50	65.5	49.5	53.2	38.5
Option 4	69	33.8	81.5	39.8	57.3	55	66.7	53.8	43.3
Option 5	69	45	83.5	45.4	59	64.5	66.9	58.5	45.8
Option 6	74.5	65	59.5	75.3	77.5	81.5	54.8	75	72.5
Option 7	78	74.5	80.5	43	62.5	75	59	55.5	46.5

Table 5.11: *Total Score Weighted by Related Weight of Nine Policy Objectives*

	POLICY OBJECTIVES										
	1	2	3	4	5	6	7	8	9	Total score	Rank
Weight*	3.7	3.5	3.1	3.8	3.8	4.2	4.3	2.9	2.6		
Option 1	67.5	65.5	63.5	45	43	35	65	60.5	32.5	1,696.70	7
Option 2	73	45.5	86	39.5	51.5	56	69.3	59	30.3	1,824.82	4
Option 3	50.5	41.5	71.5	67	50	65.5	49.5	53.2	38.5	1,740.68	6
Option 4	69	33.8	81.5	39.8	57.3	55	66.7	53.8	43.3	1,781.64	5
Option 5	69	45	83.5	45.4	59	64.5	66.9	58.5	45.8	1,915.67	3
Option 6	74.5	65	59.5	75.3	77.5	81.5	54.8	75	72.5	2,252.18	1
Option 7	78	74.5	80.5	43	62.5	75	59	55.5	46.5	2,050.35	2

Note * Relative weight of importance among policy objective 1 to 9, range of score 1-5 rated by 15 committee members, prior recognition of quantitative results.

Table 5.12: *Frequency of Vote for Rank One to Three for the Merit of each 1-7 Options, by 10 Committee Members, without Prior Recognition of Quantitative Results*

	Quantitative assessment		Overall value judgement on ranking		
	Score	Rank	1st	2nd	3rd
Option 1	1,696.70	7			2
Option 2	1,824.82	4			1
Option 3	1,740.68	6	1		1
Option 4	1,781.64	5			3
Option 5	1,915.67	3		5	
Option 6	2,252.18	1	7	2	1
Option 7	2,050.35	2	2	3	2
Total			10	10	10

Note: each member was asked to vote rank one to three.

For IP payment reform, the CSMBS reform committee decided in consensus to adopt Option 6: global budget + DRG.

5. Recommendations

The CSMBS reform committee proposed to first implement the inpatient payment reform in FY1998 as capitation requires the development of beneficiary database (which did not exist in 1997, or even now in April 1999) and which may take time to develop.

The calculation of the capitation rate is based on the magnitude of expenditure for OP in past years [22]/ (35 percent of total expenditure was for OP care) and HSRI survey of morbidity and health seeking pattern among CSMBS beneficiaries (current officials, pensioners and dependents) in 12 provinces in 1995. The survey provides OP visit per capita per year classified by 5 age groups (0-5, 6-19, 20-44, 45-60 and > 60) and by type of beneficiaries (self and all dependents).

The total CSMBS expenditure for 1998 is set at 14,400 million baht and then earmarked for different four small funds (see Table 5.13). Estimation of the capitation rate is provided in Table 5.14.

[22] / Instead of calculate from cost of service similar to 700 capitation rate for SSS in 1991, CSMBS OP capitation rate was calculated based on survey data in 1995 and expenditure ceiling of 30% of total. Based on the OP use rate and relative value of OP expenditure per visit by age group, we estimated the total OP weights. When the budget ceiling was divided by total weights, we get a value of Baht per weight. This Baht per weight is then multiplied by OP weight in each age group, then we have capitation rate by age group. Note that instead of using cost per visit for calculation the capitation rate, we used actual expenditure in the past year (30% of total). This aims to explain to the beneficiaries and hope to help implementing the reform smoothly with less resistance by beneficiaries and especially by providers.

Table 5.13: *Budget Ceiling for Four Types of Expenditure,CSMBS, 1998*

Expenditure	Payment methods	%	Million Bht	Bht per capita beneficiary *
OP	age adjusted capitation	30	4,320	615
IP	Global budget + DRG.	57	8,200	1,167
A&E	Price list	3	432	62
High cost cases	Price list	10	1,440	205
Total		100	14,400	2,050

* calculated based on 7.024 million beneficiaries

Table 5.14: *Age Adjusted Capitation Rate*

Age group	Capitation rate (Bht / person / yr)
0-5	337
6-19	337
20-44	571
45-60	753
> 60	859
All age group	615

Global budgeting for IP expenditure was chosen. The budget ceiling was proposed at 8,200 million baht for 1998. After calculating at 0.1 admission per capita per year, the expense per IP case is very close to average public hospital charge and the average private hospital charge from our survey in 1996 (see Table 5.15). Implementation problems of using case mix indicators in allocating budget among hospitals are expected, such as DRG creeping, false claims, and other technical problems.

This requires a strong auditing mechanism and punishment measures. Moreover, as payment for OP and IP are separated, we expect high referral from OP to IP among contractor hospitals for OP. For non-contractor hospitals, we expect over admission aiming at maximizing profits.

Table 5.15: *In-patient Expense, baht/ case*

IP cases	Baht per case
0.05 admission/ person/ year	23,362
0.1 admission/ person/ year	11,681
0.159 admission/ person/ year	7,321
Public hospital in 1996 for CSMBS	10,061
Private hospital in 1996 for CSMBS	11,996

Source: CSMBS charge surveys in 5 provinces, 1996; and 1995 morbidity survey.

According to the 1995 survey, respondents reported 0.159 admission per person per year. If this is the case, the average claim that hospital will receive is 11,681 baht per IP case, which is quite close to what public hospitals are charging (10,061 baht per case), and private (11,996 baht per case) in 1996.

The reform of the CSMBS is not yet complete. As noted above there is recent discussion of financing by inclusive capitation, and scheme management by the SSO. An additional important emerging issue is that all 20 public universities will have an autonomous status by 2002. Staff members and dependents are estimated at 0.7-1.0 million. There is a strong trend that each autonomous university will have its own medical benefit scheme with a likely private insurance + employer provided benefit + SSS contribution arrangement. As a result, there will be inefficiencies and increase the divergence in the gap of inequity among universities, and between universities and the rest of civil servants. Unfortunately, the Ministry of University Affairs has no leadership to govern the direction of this transition.

C. SOCIAL SECURITY SCHEME AND WORKMAN'S COMPENSATION SCHEME

The Social Security Scheme (SSS) and Workman's Compensation Scheme (WCS) are reviewed together as they are both administered by the Social Security Office (SSO) in the Ministry of Labor and Social Welfare (MOLSW) and the beneficiaries are largely the same – only the benefits they receive under each program differ, as well as the financing mechanism for each scheme.

1. Background

The SSS started in 1990 and covers non-work related sickness, maternity, and invalidity, plus a cash benefit 50 percent of wages and upon death. The SSS is financed from tripartite contributions from employers, employees, and the government, equal to 1.5 percent of the employees' wages. After the start of the economic crisis, the contribution level in 1998 was reduced to 1.0 percent of wages. Also during 1998, the SSO declared that it would no longer hold itself to any fixed level of contribution to the scheme. Under the SSS, providers are paid based on single flat rate capitation (1,000 baht per capita per annum) inclusive for ambulatory and hospital care. Workers covered under the SSS need to register with a contractor hospital. There is no copayment at the point of services. Extra-contractual services for emergencies and accidents as well as the case for high costs were arranged for mainly based on fee schedule set and updated by the SSO via the Medical Committee.

The WCS was initiated was part of Labor Law in 1973, and later developed into part of the social security system in Thailand. The WCS is an employer liability scheme for work-relared injuries where the annual contribution is 0.2-2 percent of annual wages depending on the risk of the industry. WCS employs experience rate based on loss ratio (ratio of compensation to contribution for each particular employer) to penalize employers who have high compensation for deaths, illness and injuries. Employers who have loss ratio of more than 70 percent, they are bound to contribute 110 percent of their basic rate. However, experience rate is set maximum at 200 percent of the basic rate, based on the loss ratio of 150 percent onwards. Employers with

lower loss ratio were granted with the reduction of basic rate contribution in the following years (see Table 5.16). The WCS covers work related illness and injuries, and provides a cash benefit at the level of 60% of wages and death compensation. The WCS pays providers on a fee-for-service basis with a maximum of 35,000 baht per capita per case. Patients claiming health benefits under the WCS have free access to both public and private providers. Another 50,000 baht extra-payment for high cost care provides reimbursement for seven exceptional conditions. This requires claim record review case by case.

Table 5.16: *Loss Ratio and Experience Rate, WCS, 1993*

Loss ratio	Experience rate	Loss ratio	Experience rate
Less than 10%	30% of basic rate	80.01-90%	120% of basic rate
10.01-20%	40% of basic rate	90.01-100%	130% of basic rate
20.01-30%	50% of basic rate	100.01-110%	140% of basic rate
30.01-40%	60% of basic rate	110.01-120%	150% of basic rate
40.01-50%	70% of basic rate	120.01-130%	160% of basic rate
50.01-60%	80% of basic rate	130.01-140%	170% of basic rate
60.01-70%	same basic rate	140.01-150%	180% of basic rate
70.01-80%	110% of basic rate	150.01% -	200% of basic rate

Source: Workman's Compensation Office, 1993.

2. Problems with the Current Schemes

The curative and hospital based service orientation of the SSS is one of its major weaknesses, although there is the potential to increase the provision of primary care. Measures have been introduced to strengthen employees' choice of registered hospitals and to develop a primary care network. There is a low rate of utilization of the SSS program because the care provided under capitation is perceived by patients to be of low quality, with under-provision of both ambulatory and in-patient services. On the other hand, one of the merits of capitation is its cost containment capacity and it has generated a surplus in the SSS Fund.

There are a number of problems with the WCS. First, experience rating of employers is not a powerful enough measure to prevent injuries and illnesses, as the introduction of preventive measures would in many cases be more costly than the penalty of paying higher WCS contributions. There is significant abuse by private providers (the almost sole providers for WCS beneficiaries) as payment is fee for service. Cost containment is a real problem, but the magnitude is unknown as WCS employs claim ceilings. Expenditures beyond the ceiling and who shoulders them (employer or employee) is unknown. Further, there is no guarantee for continuous treatment for cases when the expenditures go beyond the ceiling. Though there are tough claim record screenings by the six SSO area offices in Bangkok and the 75 provincial SSOs, fraud and false claims cannot be effectively filtered. In spite of these problems, as a result of experience rate and expenditure capping, the scheme keeps a balance between the contributions and expenditures (see Table 5.17).

Table 5.17: *Collected Contributions and Paid Benefits, million baht, WCS, 1986 - 1995*

Year	Contributions	Fund Expenditure	Balance
1986	284.76	218.48	66.28
1987	303.89	267.74	36.15
1988	332.84	346.76	-13.92
1989	393.75	396.93	-3.18
1990	440.62	442.65	-2.03
1991	653.38	623.80	29.58
1992	741.95	753.31	-11.36
1993	921.36	926.51	-5.15
1994	1,126.35	1,163.39	-43.04
1995	1,397.81	1,370.03	27.78

Source: SSO (1995) Annual Report .

When employees are covered by both SSO programs this gives rise to some perverse treatment and financing incentives. Employers have a tendency to urge employee to use SSS services for work related conditions, so that the employers are not penalized by experience rating under the WCS. In contrast, providers tend to ask employee to use WCS for non-work related conditions and tend to diagnose problems as work related conditions, so that they can bill the maximum allowed. Providers can benefit from both capitation under SSS and fee for services under WCS for one condition.

3. Description and Evaluation of Current Reforms

Current reforms of the SSS are aimed at adjusting coverage and benefits. Extension of sickness benefit coverage to spouses was suspended due to the recent economic crisis, and the financial implications of reducing the tripartite contribution rate from 1.5 to 1.0 percent of wages. The Thailand Development Research Institute (TDRI) is conducting a feasibility study of the possibilities of extending the SSS package to the self-employed on a voluntary basis. Results are due in a year's time. The introduction of an old age pension benefit and child allowances are due by end of 1998. This requires another 3.0 percent payroll tripartite contribution, a measure which may be difficult to pass in austere times. Sickness, maternity, disability and death benefits are to be extended beyond the grace period as designated in the SS Act for those unemployed due to an economic crisis as required in an amendment of the SS Act. Currently, SS workers lose their benefits after 6 months. Many of these workers return to their home village and the SSO continues to pay their capitation payment to registered hospitals. Thus contractor hospitals are skimming benefits from the SSO but provide no benefit to the laid off workers. Another abuse is that there is a tendency by providers towards prescribing more and more categories of the payment for extra-contractual services, especially the high cost cases.

Current reform efforts regarding the WCS focus on merging it with the SSS. While merger of payment for sickness benefit under the two schemes was recently introduced, it was not accepted by SSO senior managers, as there are too many arguments for not merging. The merger idea is to leave contribution (0.2% to 2% of payroll by employers), and the 60 percent of wages for cash benefit as it is, but to abolish the fee for service 35,000 baht per capita reimbursement model in

favor of capitation payment. This would *de facto* abolish the experience rating incentive built into the current system.

Those that support the merger argue that it would reduce over-charging and fraud claims under fee-for-service system, high administrative costs in claim reviews, problems with households financing care for severe problems costing beyond the cap, and finally less confusion to the patients regarding which scheme is to be used, the WCS or the SSS. Those that argue against the merger cite that the schemes have different principles, concepts and philosophies; and address different needs; and are satisfied with the current arrangement. One concern is what happens when a patient/worker is registered with one provider, but has a workplace accident and is taken to another provider for care. The proposed solution is for the SSO to set aside part of the SSS/WCS fund to pay for emergency cases on a fee-for-service basis.

5. Approaches and Findings – Extension of Social Security to the Unemployed Ex-Social Security Workers

a. Background

Article 38 of the 1990 Social Security Act provides six months of sickness benefit extension upon cessation of employment. This aims not only to compensate for the initial three month qualifying period at the beginning of employment, but also to provide security during the transition phase between jobs. The Social Security Act was revised in 1994 and extended benefits for maternity, death and disability. Workers are entitled to 50 percent cash benefits due to sick leave, maternity leave, etc.

Table 5.18: *Estimate of Labor Force, Employment, Unemployment in Thailand, 1997 and 1998 (in thousands)*

Item	*1997*	*1998*
1. Economic growth (%)	-0.4	-5.1
2. Total Population	60,602	61,201
3. Aged 13 years and over	46,645	47,240
4. Total labor force	32,836	33,130
5. Employed	31,639	30,973
- Agricultural	14,274	14,559
- Non-agricultural	17,365	16,414
6. Unemployed	626	1,456
- Open unemployed	182	539
- Not looking for work but available	444	917
7. Underemployed (working less than 35 hr/wk)	945	1,000
8. Seasonal Inactive (average)	572	701
- Off-season (Feb)	1,038	1,251
- In season (Aug)	106	150
9. Not in labor force	27,766	28,071
- Aged under 13 years	13,956	13,961

Item	*1997*	*1998*
- Aged 13 years and over	13,810	14,110
10. New entrants	545	637
11. Total unemployment rate (%)	**1.90**	**4.40**
- Open unemployment rate	**0.55**	**1.63**
- Not looking for work but available	**1.35**	**2.77**
12. Total seasonal inactive %	1.74	2.12
13. Labor force participation rate (%)	70.39	70.13

Source: Committee on Labor Force, Employment, and Unemployment, 10 June 1998.

Table 5.19: *Laid-off labor as Revealed by Establishment Inspection and Labor Court Records, Thailand (January 1, 1997- July 31, 1998)*

Sector	No. of Establishment	Total Male	Total Female	Laid-off labor Male	%	Laid-off labor Female	%
1. Garments	30	3408	8560	818	24.00	3159	36.90
2. Textile	42	10013	23647	1257	12.55	3355	14.19
3. Shoes and leather products	20	932	2213	569	61.05	1431	64.66
4. Toys	20	858	3417	154	17.95	1483	43.40
5. Food processing	51	6773	9213	1267	18.71	2172	23.58
6. Ornaments	22	1576	4733	336	21.32	551	11.64
7. Financial	135	6196	7030	2920	47.13	3882	55.22
8. Furniture and wood	57	6378	3150	2398	37.60	820	26.03
9. Electrical and electronic	76	13807	48726	2355	17.06	4847	9.95
10. Autos and auto parts	125	40083	12112	4284	10.69	1276	10.54
11. Iron and steel	54	5435	1287	1990	36.61	393	30.54
12. Services	173	10075	9824	1482	14.71	1459	14.85
13. Printing and advertising	32	4623	3929	836	18.08	780	19.85
14. Construction	220	22720	9450	4600	20.25	1591	16.84
15. Department stores	35	1854	3039	606	32.69	1372	45.15
16. Transportation	40	4919	2664	539	10.96	250	9.38
17. Concrete	69	7101	2888	2773	39.05	1139	39.44
18. Retail/wholesale	222	9374	6391	1320	14.08	1137	17.79
19. Plastics	34	5036	7207	1007	20.00	942	13.07
29. Others	202	20371	16590	3502	17.19	3527	21.26
Total	1659	181532	186070	35013	19.29	35566	19.11

Source: Ministry of Labor and Social Welfare (1988).

b. Crisis, Unemployment, and Coverage Extension

There was a significant layoff of SS workers after the start of the economic crisis in July 1997, estimated at 408,000 persons for the whole year of 1997. In the first half of 1998, there were

altogether 161,000 laid off workers, based on calculations from notification of the closing of establishments [23]/.

The 7th session of the Social Security Committee meeting on 9 October 1997 considered reducing the contribution rate of the three parties. They referred to the Cabinet Resolution of 7 October 1997, which supported the draft Ministerial Regulation to reduce the contribution rate from 1.5 to 1.0 percent of payroll, equally contributed by the government, employer and employee for the period of three years (1998-2000). Payment of 1.5 percent of payroll will resume in 2001, when it is hoped the economic crisis will have ended.

The 9th session of the Social Security Committee meeting on 4 November 1997 considered the proposal by the employee representative in the Committee, that the SSO extends its benefit coverage from 6 to 12 months. The Committee ruled to accept the principle to extend the benefit coverage period but had not discussed the length of extension. The Committee further demanded the SSO to explore financial implications and feasibility of the extension.

The 11th session of the Social Security Committee meeting on 2 December 1997, the SSO reiterated that a decision regarding an exact extension period is required to do accurate financial estimations.

The 13th session of the Social Security Committee meeting on 23 December 1997 scrutinized a task force report. The report proposed a 6 month extension for the period of three years (1998-2000). Given these assumptions, the financial implications to the SSS Fund is estimated at an additional cost of Baht 741 million for the three years. The Committee ruled to amend the SS Act in order to increase extension from six to twelve months for the four benefits (sickness, maternity, disability and death), during the period of 1998-2000.

Table 5.20: *Financial Scenario of Four Benefit Coverage Extension, Prepared by a Task Force for 13th Session Meeting*

Contribution and benefit granted	1998	1999	2000
1. Contribution	10,629	11,372	12,175
2. Benefits	10,405	11,198	12,485
- for current workers	9,990	10,655	11,959
- for ex-SS workers extension 6 months *	415	543	526
3. Benefit as % of contribution	97.9	98.5	102.6
4. Benefits	10,617	11,464	12,748
- for current workers	9,990	10,655	11,959
- for ex-SS workers extension 12 months *	627	809	789
5. Benefit as % of contribution	99.9	100.8	104.7
6. Estimated number of ex-SS workers	400,000	500,000	450,000

Note: (*) based on the estimation of actual benefit per capita multiply by the number of ex-workers estimated in each year.

[23] / This methodology underestimates the number of laid-off workers.

c. Problems with Current Operation

Linkage between Contributors and Registry Databases. During the process of SS Act amendment (December 1997-October 1998), there was no effective linkage between of the two databases in the SSO: namely the contribution database (reflecting active contributors, and vice versa the ex-workers) and the registry database (the providers with which contributors are registered).

In theory, the active contributors will be the active beneficiaries in the registry database, but in practice, there is a time lag in updating the registry database. As a result, the number of beneficiaries in the registry database is higher than the number of active contributors. The SSO issues the SSS ID Card which is valid for two years (currently 1997-98). In theory, this means a card holder (both active contributors and ex-workers within six month and those beyond six months) could use services at registered hospitals.

The contractor hospitals receive capitation in full based on the non-updated registry list, whereas the effective number of beneficiaries and users may be less. For example, when laid-off workers are migrant workers, it is likely that they have gone back to their hometowns and have little chance to access services at registered hospitals.

It could be said that during the period of the SS Act amendment, due to these administrative problems, the SSO and ex-workers are worse off whereas the contractor hospitals are better off.

Amendments to the SS Act. There is a cumbersome SS Act amendment process, between the SSO, the Labor and Social Welfare Ministry, the Office of the Council of State and the Cabinet, as this is a major revision of the Act. Amendment of the Act includes three major components:

- Extension of coverage to ex-workers (as discussed above).
- New coverage of child benefits and old age pensions according to the SSO long term plan.
- Amendment of equal tripartite contribution by deleting the phrase: "contribution equally" from Article 46 [24]/. This allows the government to contribute according to the overall state of public finance and their share is not required to be equal to that contributed by employee and employer. This amended article 46 is a political issue which unions and labor academics are strongly against. As this is a major amendment of the Act, the issue of Article 46 delays substantially the action on extension coverage.

Hopefully the amended Act could be finalized by the Parliament (three readings) by December 1998, otherwise the next parliamentary session meeting will take place in May 1999.

[24] / Note that amendment of deleting the phrase of equal contribution is aimed for the other two new benefits (child benefit and old age pension), but for the existing four benefits, there is equal contribution by three parties concerned.

6. Approaches and Findings – Workman's Compensation Scheme

a. Background

Contributions. As an employer liability scheme, employers of more than 10 worker are required to make compulsory contributions to the Workmen's Compensation Fund (WCF) at a rate of 0.2-2.0 percent of payroll (amended to 0.2 –1.0 percent - after the start of the crisis July 1997) [25]/. Subsequent year contributions are adjusted by an experience rate based on loss ratio (ratio of compensation to contributions) in previous years.

- Firms whose loss ratio less than 10% are granted a 70 percent reduction of the basic rate.
- Firms whose loss ratio is between 60 and 70 percent are not either granted a reduction nor penalized with an increase over the basic rate.
- Firms whose loss ratio is 150 percent are penalized with an increased rate, 200% of basic rate (see Table 5.21).

Table 5.21: *Loss Ratio and Experience Rate, WCS, Thailand, 1993*

Loss ratio	Experience rate
Less than 10%	30% of basic rate
10.01-20%	40% of basic rate
20.01-30%	50% of basic rate
30.01-40%	60% of basic rate
40.01-50%	70% of basic rate
50.01-60%	80% of basic rate
60.01-70%	same basic rate
70.01-80%	110% of basic rate
80.01-90%	120% of basic rate
90.01-100%	130% of basic rate
100.01-110%	140% of basic rate
110.01-120%	150% of basic rate
120.01-130%	160% of basic rate
130.01-140%	170% of basic rate
140.01-150%	180% of basic rate
150.01% -	200% of basic rate

Source: Workmen Compensation Office, 1993
Note: that after the economic crisis in July 9, 1996 the basic rate was adjusted down to 0.2-1% of payroll. The lowest experience rate is 20% of basic rate and the highest experience rate is 250% of basic rate.

[25] / After the economic crisis in July 9, 1996 the basic rate was adjusted down to 0.2-1% of payroll in order to ease employer financial burden. The lowest experience rate is 20% of the basic rate and the highest experience rate is 250% of the basic rate.

We doubt the effectiveness of using experience rating as a financial incentive for employers to increase work safety and thus reduce injuries, claims and compensation to their workers. Penalized firms have not changed their workplace safety measures in spite of the penalties.

Contribution and compensation statistics. Comparing the contributions and the compensations, the Workman's Compensation Fund (WCF) has had a positive balance between 1986-1987, 1991 and 1995 onwards. When comparing revenues from contributions and other sources with expenditure, the Fund has a positive balance every year. In 1997, the total WCF assets were around 11 billion baht. In 1997, the total compensation was 1,986.5 million baht. This expenditure was based on a total number of 230,376 claims. The sickness claims composed 48.1 percent of total compensation, i.e. 956.1 million baht. This means that there was an average expenditure of 4,150 baht per claim, and 162 baht per beneficiary (see Table 5.22).

Table 5.22: *Collected Contributions and Paid Benefits, Thailand, WCF, 1986 - 1997*

Year	Contributions	Benefits	Balance	Benefit as % contribution
1986	284.76	218.48	66.28	76.72
1987	303.89	267.74	36.15	88.10
1988	332.84	346.76	-13.92	104.18
1989	393.75	396.93	-3.18	100.81
1990	440.62	442.65	-2.03	100.46
1991	653.38	623.80	29.58	95.47
1992	741.95	753.31	-11.36	101.63
1993	921.36	926.51	-5.15	100.56
1994	1,126.35	1,163.39	-43.04	103.82
1995	1,397.81	1,370.03	27.78	98.01
1996	1,837.50	1,609.50	228.00	87.51
1997	2,235.25	1,986.48	248.77	88.87

Source: SSO 1997 annual report

There are five type of compensation: medical expenditures, cash benefit for sick leave >3 days, permanent disability, partial disability, and death + funeral grant. In 1997, almost half of total compensation (48.1%) is medical services, the rest are cash compensation.

Table 5.23: *The Occupational Injury and Disease Claims, by Categories of Compensation, WCS, Thailand, 1997.*

Age	Number of cases by type of compensation

Group	Death	Permanent disable	Partial disable	Sick leave > 3d	Sick leave <3d	Total cases
15-19	88	2	742	9,201	18,869	28,903
20-24	173	6	1,191	15,482	39,086	55,939
25-29	191	5	1,196	14,641	37,691	53,725
30-34	125	6	753	9,776	23,363	34,024
35-39	108	2	512	6,557	13,754	20,934
40-44	79	3	342	4,336	7,972	12,733
45-49	70	1	147	2,307	3,843	6,369
50-54	27	-	84	1,027	1,705	2,844
55-59	16	-	37	573	826	1,453
60+	10	1	16	295	389	712
Total	887	26	5,020	64,195	147,498	217,627*
Percent	0.4	0.0	2.3	29.5	67.8	100

Source: Workmen Compensation Fund annual report

Notes:

1. (*) Exclude 12,494 cases with unknown age-group and 255 cases of under 15 years old.
2. By law, there is no cash compensation (60% of wages) for sick leave less than 3 days. Cash compensation is granted for death (plus funeral grant), disability and sick leave more than 3 days.
3. Almost all cases claimed for medical expenditures, then total cases equate total incidence.

The majority of cases (67.8%) are for minor conditions requiring less than 3 days of sick leave. However, it doesn't always mean that sick leave of more than 3 days are more serious cases, as beneficiaries have incentives to ask doctor to grant them for more than 3 day sick leave in order to be entitled to the cash benefit (60% of payroll).

Table 5.24: *The 1997 Occupational Injury and Disease Claims, by Region, Thailand*

Region	Death	Permanent disabled	Partial disabled	Sick leave>3d	Sick leave <3d	Total cases	%
Bangkok	301	11	1,268	19,877	42,570	64,027	27.8
5 vicinity provinces	166	3	2,844	25,021	70,052	98,086	42.6
Central	273	7	678	12,996	29,038	42,992	18.7
North	117	5	156	3,149	5,641	9,068	3.9
Northeast	101	1	145	2,388	3,390	6,025	2.6
South	75	2	181	5,049	4,871	10,178	4.4
Whole country	1,033	29	5,272	68,480	155,562	230,376	100

Source: Workmen Compensation Fund Annual Report.

Most of the cases are concentrated in Bangkok and the five nearby provinces, 70.4 percent of total cases throughout the country.

Table 5.25: *Incidence Rate per 100 Beneficiaries by Age Group and Type of Compensation, Thailand, 1997*

Group	Population	Death +	>3 day sick	<3 day sick	Incidence rate

		disabled	leave	leave	%
15-19	853,079	0.1	1.1	2.2	3.4
20-24	1,502,757	0.1	1.0	2.6	3.7
25-29	1,385,458	0.1	1.1	2.7	3.9
30-34	929,801	0.1	1.1	2.5	3.7
35-39	568,140	0.2	1.2	2.4	3.7
40-44	324,453	0.1	1.3	2.5	3.9
45-49	184,247	1	1.3	2.1	3.5
50-54	90,883	0.1	1.1	1.9	3.1
55-59	50,215	0.1	1.1	1.6	2.9
60+	29,434	0.1	1.0	1.3	2.4
Total	5,918,467	0.1	1.1	2.5	3.7*

Source: Workmen Compensation Fund annual report
Note: (*) when adjusted for 12,494 cases of the unknown age group, the total incidence would be **3.9 per 100 beneficiaries.**

Incidence of work related injuries and conditions. The total incidence rate in 1997 is more or less similar across the age group of 15-49 (incidence 3.4-3.9 per 100 beneficiaries). The other group (50-60+) has a similar lower incidence rate of 2.4 to 3.1 percent.

b. Problems with Current Operation

Medical expenditure claim processes. Once injured, a patient seeks care from any hospital (private hospitals are preferred). Patients do not know how much, or how many hospital inpatient days the hospital will claim to the SSO. Although an invoice is signed by the patient, it is suspected that the signature was made before or after the invoice was filled up. The hospital provides an invoice (including OP and IP claims) to the SSO Area Office in Bangkok or provincial SSO Office. Almost all the cases will be paid as requested, as SSO staff are not keen in clinical audit or requesting information from hospitals. Our invoice review at Area Office Five found a very high charge for outpatient with simple conditions and several unreasonable items. The OP charge pattern includes drugs, X rays, some laboratory tests, charges for dressings, etc. The IP charge pattern includes room and board and other items similar to OP. It is beyond the SSO capacity to filter these claims for fraud.

Utilization profile. An assessment was conducted of the magnitude OP and IP claims. A sample survey was launched in October to see the utilization profile in SSO Area Five Office looking at sample invoices claimed to this office.

Table 5.26: *Proportion of Out-patient and In-patient Claims, SSO Area Five Office, Thailand, 1998*

	OP	IP	Total

Public	23	3	26
Private	110	18	128
Total	133	21	154
Percent	86	14	100

Source: Sample survey of claim form, August, 1998, Social Security Office Area Five (covering 8 districts in Bangkok - Dusit, Sathorn, Pomprab, Phranakorn, Yanawa, Bangrux, Bangkolaem, Sampanthawong).

The sample survey in SSO Area Five found the proportion of **OP to IP claims was = 86:14**. This figure confirmed the previous report by Waropas in 1993 the proportion of **87:13**.

Waropas also reported the proportion of cases which used private hospitals was 99.9 percent and **28 percent of total medical expenditure went to OP** and the rest **72 percent went to IP care**. Our one month census found 95 percent of cases went to private hospitals (see 5.27).

Table 5.27: *Public-Private Share in WCF in Prachachurn SSO Area Office, Thailand, 1998*

	Private hospital	Public hospitals	Total
Number of claims	557	31	588
%	95	5	100
Total claim Baht	1,998,544	37,680	2,036,224
%	98	2	100
Baht per claim	3,570	1,215	na

Source: One month census of claims, August '98, Social Security Office Area Five, Bangkok.

We conclude that most of the caseload (87%) was for ambulatory care visits whereby most of the expenditure (72%) was for inpatient care. Private hospitals are almost the sole providers for beneficiaries.

Claim Profile.

Table 5.28: *Average Claim Public and Private Hospitals*

	OP claim Baht / visit	IP claim Baht / case	Average LOS	IP charge per day
Public hospital				
Mean	562	4,919	5	983.8
Max.	1,445	12,872	10	
Min.	120	678	1	
N	23	3	3	
Private hospital				
Mean	1,899	15,584	2	7,792.0
Max	11,762	35,000	7	

	OP claim Baht / visit	IP claim Baht / case	Average LOS	IP charge per day
Min	126	3,345	1	
N	110	18	18	

Source: Sample survey of claim forms, August '98, Social Security Office Area Five, Bangkok.

The charge per OP visit in public facilities (562 bhat) is 3.4 times lower than in private facilities (1,899 baht). The charge per IP case in public facilities (4,919 baht) is 3.2 times lower than in private facilities (15,584 baht). Note that the average length of stay (ALOS) in private facilities is 2 days, much lower than in public facilities (5 days). As a result, IP charges per day in private facilities (7,792 baht) is 8.3 times higher than in public facilities (984 baht).

Funds are not used to Improve Workplace Safety

The large reserves held by the WCS should be used to improve workplace safety. Perhaps 3 percent of the contributions could be set aside for this purpose, guidelines developed for the funds' use, and a council formed to monitor the funds use. An additional small percentage of contributions should be used to inspect facilities against standards.

c. Synthesis of Important Parameters

If 72 percent of 956.1 million (688.39 million) in 1997 went to IP and 13% of total 230,376 cases (29,949 cases), then claim per IP case is around 688.39 million / 29,949 = **22,985 baht per case**. Similarly, claim per OP visit = 267.7 million / 200,427 = **1,336 baht per visit.**

sickness claims = 956,100,000/5,918,467 = 162 Baht per capita beneficiary
Estimated OP visit per beneficiaries = 200,427 / 5,918,467 = 0.0338
Estimated admission per beneficiaries = 29,949 / 5,918,467 = 0.0051

Estimation of Capitation
Therefore a capitation rate = (0.0338 * X) + (0.0051 * Y) whereas
X = allowance per OP visit
Y = allowance per IP case

Table 5.29: *Capitation Rate, Various Scenarios of X baht /visit and Y baht /case*

	IP / case (Y)				
OP/visit (X)	7,000	12,000	18,000	16,090	22,985*
600	56	81	112	102	138
800	63	88	119	109	144
935	67	93	123	**114**	149
1,200	76	102	132	123	158
1,336*	81	106	137	127	**162**

Note * currently under WCS average claim = 1,336 Baht per visit, and 22,985 Baht per IP case.

The capitation rate is calculated at 162 per capita per year if the WCF wants to provide X and Y as it is providing anyway under the fee for service system in 1997. However, we estimate the

magnitude of over-charge of real items, false charge of unreal items at **30% of total expenditure.** When adjust for 30%, the OP should be 935 baht per visit and IP should be 16,090 baht per case. This provides a capitation rate of **114 baht per capita per year**. We compare WCS claim 1,336 baht per visit and 22,985 baht per IP case with CSMBS claim in Table 5.30.

Table 5.30: *Reference Price from CSMBS: Current Government Official, 1996*

Level of care	OP charge per visit	IP charge per case
University hosp	1,316	18,380
Regional hosp	553	13,521
MOPH hosp in BKK	668	17,810
Private hosp in BKK	Na	16,366
Private hosp outside BKK	Na	9,773

Source: Tangcharoensathien V et al 1998

5. Recommendations

There are essentially three areas for future policy reform. They are:

- Extend SSS benefits to the spouses and dependents, then to the self-employed, and finally to recently retrenched workers.
- Modify Provider Payment Mechanism for WCS. Differential capitation by size of registered workers to providers (high rate for higher risk and vice versa) based on more realistic empirical data.
- Unify the SSS and WCS. Merge the payment method, replace fee for service retrospective reimbursement model by prospective contract model using capitation payment to providers. As there is a provision of extra-high cost payments under SSS, there are no arguments against the capitation system especially among those severe work related injuries.

Further details are provided below.

Recommendations on SS Sickness Extension to the Unemployed

- Publicize and increase awareness among the currently unemployed of their rights to the four benefits for a twelve month extension after losing employment.
- An effective re-registration and new choice of providers for laid-off workers according to their need and domicile is urgently required.
- Improve the two databases - the active contributor and registry, so that SSO effectively pays hospitals for sickness benefits according to current effective numbers of beneficiary and users.
- Ensure compliance of employer registration and payment of contributions especially in the economic downturn whereby enterprises are likely to violate the law.

- As the contribution rate is temporarily reduced for three years due to the economic crisis (1998-2000), and government inability to pay the Fund in full; the increasing scheme expenditure due to double extension of entitlements, will deplete previous reserves significantly. Careful financial planning is strongly recommended.

Other Recommendations Related to the SS Scheme

The ILO's recent SSS review provides several firm recommendations (ILO 1997). We like to reaffirm the following ILO recommendations [26]/.

- Extension of health insurance coverage to dependents (non-working spouse, and two children up to 18 years) aiming at social protection and part of universal coverage efforts.
- Extension of health insurance coverage to the retirees with appropriate contribution rate. This also aims at social protection to the retiree and is part of universal coverage efforts.
- Implementing voluntary SSS coverage for the self employed and their dependents. See Pananiramai, M. et.al. (1998) report on social security extension to the self employed.
- Stronger quality assurance mechanism, which goes beyond use of structural indicators to more process orientation indications, based on site visits and medical records audit.
- Stronger punishment and sanction mechanisms of contractor hospitals that provide inadequate care.
- Institute special incentives to promote primary medical care.
- Regular indexation of capitation rate using health consumer price index and differential capitation stimulating primary medical care.
- Careful extension of high cost cases and payment outside capitation rate.

Estimation of the additional costs to the SSS to extend coverage to spouses and dependents, self-employed persons, and those recently retrenched appears in the table below. The total financial requirement for the government in 1999 of 3.2 billion baht was calculated as follows. Information on real expenditure of the SSS for the years 1991-96 for three types of sickness benefit was collected. Basic care based on capitation was 97.7 percent of total expenditure on sickness benefit, high cost for expensive cases was 0.4 percent and accident and emergency sought care from non-registered hospitals was 2 percent. These relative proportions were used to estimate total expenditure on sickness benefit to four population grousp for sickness coverage extension (excluding cash compensation for sick leave and maternity-related benefits).

Table 5.30: *Financial Estimation for SSS Sickness Benefit Coverage Extension, Thailand, 1999*

	COVERAGE EXTENSION TO TARGET BENEFICIARY			
Type of expenses	1. Non-working	2. Dependants <18	3. Self employed in	4. Recently

[26] / ILO (1997). Thailand, review of the social security scheme, part I: summary and recommendations. Geneva: International Labor Organisation.

on sickness benefit	spouse of current SS workers	yr., (not more than 2 persons)	urban area *	retrenched
1. Estimate number of target population (million)	~30% of 5 mil current workers, 1.5 million	~50% of 5 mil x 1.5 persons = 3.75 mil	0.98 mil.	Approximately 1 mil.
2. Sickness coverage for basic care, at 1000 Baht capitation rate (mil Bht)	1,000 Bht/capita x 1.5 mil = 1,500 mil Bht.	1,000 Bht/capita x 3.75 mil = 3,750 Bht.	0.98 x 1,000 = 980 mil Bht	1 x 1,000 = 1,000 mil Bht
3. Additional payment for high cost care (mil. Bht)	=1,500x0.4/97.7 = 6.1 mil Bht	=3,750 x 0.4/97.7 = 15.4 mil Bht.	=980 x 0.4/97.7 = 4.0 mil. Bht	=1,000 x 0.4/97.7 = 4.1 mil. Bht
4. A&E in non-registered hospitals (mil. Bht)	=1,500 x 2/97.7 = 30.7 mil Bht	=3,750 x 2/97.7 = 76.8 mil Bht	=980 x 2/97.7 = 20.1 mil Bht	=1,000 x 2/97.7 = 20.5 mil Bht
5. Total expenditure (mil Bht)	1,536.8	3,842.2	1,004.1	1,024.6
6. Government contribution to Social Security Fund (mil Bht)	1/3 of 1,536.8 = 512.3 mil Bht	1/3 of 3,842.2 = 1,280.7 mil Bht	1/3 of 1,004.1 =334.7 mil Bht	1/1 of 1,024.6 = 1,024.6 mil Bht
Total Government contribution	**3,152.3 million Baht**			

Note:
* it is unlikely that the SSO can introduce voluntary self employed scheme in rural area, whereby the total number of self-employed was 4.34 million in 1996.

Recommendations related to the WCS, Payment reform options

We propose the reform of payment for sickness benefit by leaving status quo for other issues such as:

- The WCF stays at its current legal status, maintaining the employer liability scheme, solely contributed by employers. The basic contribution rate stays the same, except if capitation was chosen, loss ratio and experience rate adjustment for basic rate contribution will be based on other compensations such as cash compensation and death benefit. Experience rate will exclude sickness expenditure, as sickness expenditure are equal among all employers.
- Cash compensation for more than 3 days of sick leave.
- Compensation for disability, death, and funeral grants.

Other SSS/WCS recommendations:

- Integrate work related and non-work related conditions to be financed through SSF and WCF to a single payment system, i.e. inclusive capitation (for work and non-work related) at the rate of not more than 1,162 baht per capita per year, based on previous year expenditure, not on cost.

- Maintain other WCS component such as cash benefit, death compensation arrangements and risk adjusted contribution solely by employer.
- As the WCS and SSS cover the identical target population, it simply requires the routine annual registration to preferred contractor hospital by each employee.
- Provision of extra claims for accident and emergency under the SSS arrangements help to solve the counter-argument on the emergency nature of work related conditions that need immediate attention to the nearest providers.
- Rather than penalize the companies with high risk of work safety measures, use a percentage of collections to pay to introduce safety measures in these firms.

D. VOLUNTARY HEALTH CARD SCHEME (VHCS)

1. Historical Background

The Voluntary Health Card Scheme (VHCS) has been in operation more than 16 years. At its inception in 1983, the health card was an innovation to complement the four elements of primary health care (i.e. mother and child health (MCH), the expanded program on immunization (EPI), essential drug and simple treatments). It focused on health services in rural areas. The prepaid health cards were sold to raise funds for the Village Mother and Child Health Development Fund, and the cards entitled cardholders to free treatments, MCH and EPI activities. After an experiment over 8 months in 7 provinces, followed by a brief evaluation, the Ministry of Public Health then set the target for the second phase to expand the health voluntary card to at least one sub-district in each province by 1985, and to all districts of each province by 1986 and to all sub-districts by the end of 1987 (see Table 5.32).

The third phase of the voluntary health card scheme started with changing from the principle of community financing to voluntary health insurance. When the country moved into the Sixth National Health Plan (from 1987 to 1991), the health card scheme had been renamed 'the voluntary health insurance project'. The sale of cards was extended to urban areas. Later in 1993, the scheme started to receive government subsidy in the form of matching funds. No distinction was made between the families requiring the subsidy and those that did not.

The fourth phase of the voluntary health card scheme is the period of policy reforms (starting from 1994). The reforms did not come in a comprehensive package but rather evolved in a piece-meal fashion. The main theme has been to make the scheme more centrally policy guided. The principle of the scheme is the mix between voluntary health insurance and public subsidy. The following points describe in details what the changes are:

- The government allocates an annual matching fund from tax revenue. In 1993, the cabinet approved in 1993 to fund the scheme at 500 baht a card if households purchase the card at a price of 500 baht. The matching budget was calculated under the assumption of full cost-recovery by MOPH service providers at the level of 1000 baht. This budget has been in effect since fiscal year 1994.

- Changing of health card fund to be managed like a revolving fund so that the government budget subsidy could be allocated within each fiscal year. In 1995, the Ministry of Finance

set up an accounting system for the central and provincial health card funds that complies with the regulations of the government revolving funds.

- Pooling risk at the central level to facilitate portability of coverage for cardholders and risk sharing among provincial funds. Two and one-half (2.5) percent of 1,000 baht is deducted from each card sale to be paid to the central fund to pay for cross-boundary services between provinces and high cost services within the same or at different provinces. This policy started in 1995.

- In 1994, new variants of the voluntary health cards emerged. Free health cards were given to community leaders and village health volunteers to cover for free health care of their families. However, these variants are considered to be a public assistant scheme and the Budget Bureau always argues that it should be financed under the low-income card scheme, not under the voluntary health card scheme.

After the centralizing VHCS policy, the VHCS regained its popularity, and the sale of the cards increased to 2.1 million in 1997 and possibly 2.4 million in 1998 (see Table 5.33). Increasing card sales has the downside that, on average, each card sold resulted in a deficit of 871 baht in 1996 and 1,138 baht in 1997 (Health Insurance Office, 1998). This implies many possibilities: adverse selection, moral hazard, and under pricing of the card.

Table 5.32: *Main Characteristics of the Health Card Scheme since 1983, Thailand*

Phase I 1983	Phase II 1984-1986	Phase III 1987-1991	Phase IV 1993-
Conceptual framework MCH & FP (Community financing)	Primary health care (Community financing)	Primary health care and voluntary health insurance	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 big hospitals	To provide health security To support primary health care	To provide health security To achieve near universal coverage
Area target 18 villages in 7 provinces: Khon Kaen, Roi Et,	All provinces, at least one sub-district in each province, and two	All provinces, and cover all districts in each province	All provinces

Phase I 1983	Phase II 1984-1986	Phase III 1987-1991	Phase IV 1993-
Lamphun, Nakhon Sawan, Petchaburi, Ratchaburi and Songkhla	villages in each sub-district		
Population coverage Not established	From 70% of village population and reduced to 30%	30% of total population	Target to subgroup of population with no health benefit coverage
Card prices Treatment & MCH B200 Treatment only B100 MCH only B100	 Family card B200 MCH B100	 Family card B300 Individual card B200 MCH B100	 Family card only B500 (MCH included)
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 limit

Source: Pannarunothai et al (1997)

Table 5.33: *Coverage of Voluntary Health Card and Revenue Raised at Current Prices, Thailand, 1987 - 1997*

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

Source: Pannarunothai et al (1999)

2. Problems with the Current Scheme

The current VHCS has several problems. One is that adverse selection occurs in provinces with low card coverage. Second the high cost of care provided under the card means that the MOPH will either have to raise the price of the card, or increase government subsidy. This latter course of action would be inequitable as the current VHCS subsidy per capita is about equal to the LICS subsidy. Third there is the problem of moral hazard. Fourth, the public relations section of the

Health Insurance Office has been able to effectively increase coverage under the VHCS, but have missed the target population (i.e. the wealthy buy cards). Finally, the VHCS alone will not allow Thailand to achieve universal coverage.

a. Target Setting

The popularization of the VHCS by the MOPH since 1997 has been criticized that it increased adverse selection by card buyers. Mass-media campaigns have missed the opportunity to educate the population about pooling of health risks to counteract the uncertainty of illness and related expenditures. Because the voluntary nature of the card, the populations covered by the VHCS are sicker and make more frequent use of services than other groups of the Thai population (see Table 5.34). Utilization rates for the VHCS were high when compared with other schemes, except for the elderly and private insurance. The rates of VHCS utilization are quite comparable with those covered under the LICS. It is unclear whether the higher admission rate of VHCS cardholders in 1997 reflects better access to health service or increased adverse selection.

Table 5.34: U*tilization Rates of Different Population Groups under the VHCS, Thailand, 1991 and 1996*

	VHCS	CSMBS	Elderly	Children	LICS	SSS	PI	None
1991 NSO*								
Illness episode/yr	6.9	5.4			7.2			5.7
OP visits/yr	2.8	3.1			2.7			2.0
Public	2.0	1.8			2.1			1.0
Private	0.8	1.3			0.6			1.0
1996 NSO								
Illness episode/yr	5.0	4.5	12.3	4.9	5.9	2.6	4.4	3.3
OP visits/yr	3.3	3.2	8.4	3.7	3.7	1.5	3.2	1.9
Public	2.5	2.0	6.4	2.1	3.0	0.7	0.8	1.1
Private	0.7	1.2	2.1	1.5	0.7	0.8	2.4	0.8
IP admission/yr	0.09	0.08	0.16	0.04	0.09	0.05	0.15	0.05
% Public	92%	74%	79%	80%	93%	52%	28%	79%
% Private	7%	25%	21%	19%	6%	46%	71%	19%
1997 HIO								
OP visits/yr	2.7							
IP admission/yr	0.11							

Sources:
1991 and 1966 NSO surveys.
HIO data.

If income is used as a measurement for targeting the VHCS, there is no crude relationship between average income of the population in a region with the coverage by the voluntary health card. Data from the Socio-Economic Survey (SES), 1994 and Health and Welfare Survey (HWS), 1996 show that the poorest region, the Northeast, had about 21 percent of health card coverage, but the northern region (the second poorest had the highest coverage 25 percent), and people the rich regions bought fewer cards (in Bangkok<0.05 percent).

The provincial health survey by the MOPH in 1995 provided data on income of the head of households and their health benefit coverage. Table 5.35 shows the proportions of people under the VHCS, all other types of coverage and those uncovered, by monthly income. People in urban areas had higher income than in rural area. If an income of 15,000 baht a month is used as a cut-off point for eligibility for coverage by the VHCS, then about 2 percent of the urban and rural population were too rich to buy the health card. However, if an income of 2,000 baht a month is set as the cut-off point for having the low-income card, then 19 percent of the population in urban areas and 28 percent of the population in rural areas were legible for low-income card but instead they opted to buy the VHCS. In terms of the uncovered group, 75 percent of the uncovered population in urban areas and 65 percent of the uncovered population in rural areas (in 1995) would be potential targets for the VHCS because they had income higher than 2,000 but and less than 15,000 baht..

Table 5.35: *Proportion of the Coverage by VHCS, all Insurance Schemes, and the Uncovered by Urban/Rural and Income, Thailand, 1995*

Household Head	Urban				Rural			
Monthly income	Total	VHCS	All	None	Total	VHCS	All	None
<=2,000	16	19	18	14	34	28	36	30
2,001-8,000	54	67	51	60	53	62	51	59
8,001-15,000	18	9	19	15	7	6	8	6
15,001-20,000	3	1	3	3	1	1	1	1
20,001+	5	1	6	5	1	1	2	1
Don't know	3	2	3	4	3	2	3	3
Total	10,602	1,214 (12%)	6,999 (66%)	3,603 (34%)	42,385	8,015 (19%)	29,329 (69%)	13,056 (31%)

Source: Provincial Health Survey, MOPH

Table 5.36: *Proportions of the Coverage by Income and Dependency Ratio in 3 Provinces, Thailand*

	Nan				Phichit				Srisaket			
Annual income	Total	VHC	LICS	None	Total	VHC	LICS	None	Total	VHC	LICS	None
<40,000	137	75.9	10.9	0.7	108	27.2	43.4	13.9	110	28.1	47.6	17.3
40,000-99,999	110	84.5	7.3	0.9	125	27.2	36.0	12.0	164	32.3	40.2	14.0
100,000-199,999	49	71.4	8.2	-	97	34.1	17.5	16.5	80	40.1	16.3	18.8
200,000+	33	57.6	9.1	-	70	27.2	10.0	8.6	46	52.2	15.2	6.5
Dependency ratio												
<=0.25	95	74.7	5.3	-	114	28.1	18.4	19.3	139	33.8	20.8	25.2
0.26-0.50	91	84.0	5.5	1.1	112	28.6	31.3	14.3	97	42.3	34.1	10.3
0.51-1.00	91	78.0	7.7	1.1	117	32.4	26.5	10.3	110	31.8	40.0	10.0
>1.00	52	63.5	19.2	-	55	20.0	52.7	3.6	54	31.5	42.6	7.4
Total	329	76.2	8.2	0.6	400	28.3	29.0	13.0	400	35.1	33.8	15.0

Note: percentages in row not add up to 100% because other categories were not presented
LICS included the low-income, the elderly and the underprivileged
Source: Denduang (1998)

In selected 3 provinces of high and low coverage for health card, details on income and dependency ratio were studied. Table 5.36 shows that, at household level, 76 percent of the total households in Nan province had purchased the voluntary health card, and only 0.6 percent of total households lacked any health insurance. Among the poor (income<40,000 baht per year), 76 percent of the poor opted to buy health card. On the other hand, 58 percent of the rich families (income >200,000 baht) in Nan also bought health cards.

In terms of dependency ratio within the family, those families with a high dependency ratio were more likely to be covered under the LICS [27]/. This pattern is very clear in Phichit and Srisaket provinces. The uncovered families were also poor (income <40,000, so should have been included under the LICS) and the low dependency ratio.

b. Not Selling the VHC to the Rich

Many of the rich buy voluntary health cards to escape user fees at point of service delivery, whereas the poor may not have the funds to pay for the card and pay high user fees. In the response to the Budget Bureau's request, the Health Insurance Office is considering a cut-off point based on income to reduce card sales to the rich. Building on tax formula, a family earning less than 15,000 baht a month (180,000 baht a year), or single person earning less than 6,000 baht a month, are exempted from paying income tax. The tax exemption voucher could be used as evidence of low-income to buy the voluntary health card. Using these limits as cut-off points, only 1 percent of health cardholders in 1995 would have been considered too wealthy rich to buy the card (see Table 5.36).

It is the policy and practice in the Nan municipal area that the voluntary health card will not be sold to the people who own a mobile phone or a pick-up truck. However, figures from Table 5.36 show that a large number of 'rich' households in Nan were health cardholders. The village health volunteers in Nan disagreed with that use of these indicators as measures of wealth and suggest reconsideration of the rule.

[27] / A high dependency ratio means more family members are children or elderly as compared to those of working age.

3. Description and Evaluation of Current Reforms

a. Health Expenditure and Benefit Package of the VHCS

The VHCS provides access to free care mainly within the network of MOPH. Referral for super-tertiary care is possible but the information on this item is limited. Table 5.37 shows the cost of providing care to the voluntary health cardholders at health center (HC), community hospital (CH), general hospital (GH) and regional hospital (RH). Cost is estimated from reported charges, adjusted by the cost to charge ratio [28]/, (cost to charge ratios were 1.00 for HC, 0.93 for CH and 0.88 for GH/RH).

Table 5.37: *Cost of Providing Care to Voluntary Health Cardholders, Thailand, 1997*

	HC	CH	GH	RH	GH refer	RH refer	Total
OP visits/card	5.64	3.44	1.08	0.19	0.07	0.05	10.47
OP baht/visit	39	128	191	290	320	507	92
OP baht/card	221	440	206	54	21	23	966
IP cases/card		0.24	0.15	0.02	0.02	0.01	0.45
IP baht/case		1,497	3,500	5,436	3,722	7,906	2,625
IP baht/card		366	514	126	76	90	1,171
Baht/card		806	720	180	97	113	2,137

Source: Health Insurance Office.

Figures from Table 5.37 were estimated on a per card basis. If converted to a person basis, the OP visits was 2.67 per person per year and hospitalization was 0.11 per person per year. The overall rates did not show any significant increase in utilization, however data for low coverage provinces showed adverse selection and moral hazard (high utilization of services).

Adverse selection not only originates from buyers of health card, but also occurs under the advice of health personnel. Chronically sick patients who have no other health benefit but look relatively poor, will be advised to purchase the voluntary health card to ensure continuity of care. Moreover, health providers, e.g. obstetricians, may advise pregnant women to buy the voluntary health card, so that caesarean sections can be performed without extra charges from the hospitals, but an extra payment to doctor is made.

Policy questions arise whether the existing benefit package is too generous. There are several ways to trim down the cost, e.g. limit the number of visits per card, reduce or exclude outpatient benefits, set a ceiling for high cost care, limit the number of persons covered per card, introduce copayments at point of delivery (e.g. charges for drugs). These measures deal with demand side rather than supply side.

[28] / Cost to charge ratio is a mathematical conversion of charges for health services into the costs of providing that care. The ratios are based on studies which analyzed these relationships.

b. Raising the Card Price

Currently, the VHCS is running at deficit. This is against the philosophy that the VHCS is for the non-poor, and where the LICS is targeted for the poor. When the price of the voluntary health care is low, the poor have a choice between coverage under the LICS or the VHCS. Raising the card price would reduce the demand for health card amongst the LICS eligibles. Table 5.38 shows that about a quarter of health card subscribers in Nan would quit the VHCS if the price increased. The majority of respondents would accept a very marginal price increase up to 600 baht. If the card price increased to 1,000 baht, less than 20 percent of cardholders continue to subscribe (Denduang and Denduang, 1999).

Table 5.38: *Response to Price Increase*

	Srisaket		Nan	
	N	%	N	%
Price raised, not purchase	186	29.0	108	23.6
Still purchase if 600 baht	264	41.2	272	59.4
700 baht	106	16.5	47	10.3
>700 baht	87	13.4	31	6.8

Source: Denduang and Denduang, 1999.

c. Imposing Copayments

An alternative for raising the card price is to impose a copayment each time a cardholder makes a visit to health services. Two sources of information give different views on the outcomes of adopting this policy. Community leaders commented that imposing copayment at the point of delivery would be difficult to explain to cardholders and would reduce the number of subscribers. Interviews of inpatients in a provincial hospital found that most of the patients (60-86% of the total patients) agreed to pay copayments in order to help the government share some cost. The second most common reason for acceptance of copayments was to make those who used services more frequent pay more than who did not (the pay as you go system, PAYG). Cost control was not the main reason for imposing copayment in the patients' views (see Table 5.39).

Table 5.39: *Reason for Imposing Copayment*

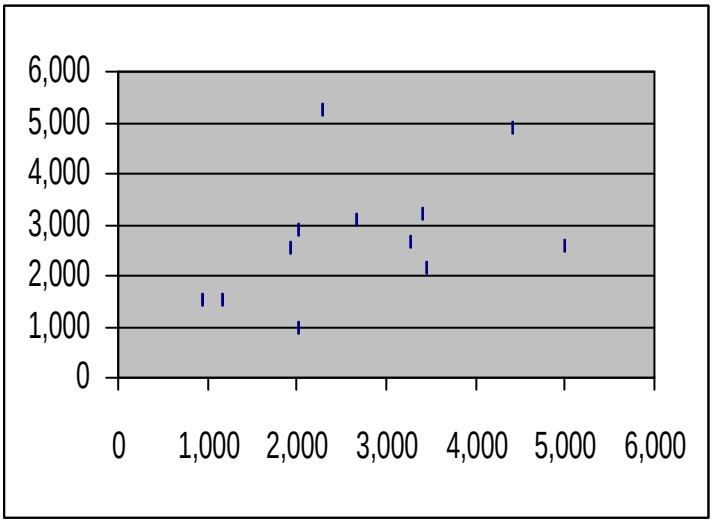
		C			N			NE			S	
Reason	All	LICS	VHCS	All	LICS	VHCS	All	LICS	VHCS	All	LICS	VHCS
N	277	91	51	211	30	88	505	124	213	318	70	85
PAYG*	20.6	17.6	19.6	13.3	3.3	5.7	16.1	11.3	14.7	8.2	5.7	5.9
Think before use	4.3	5.5	2.0	0.9	0.0	1.1	9.0	12.1	10.1	4.7	1.4	4.7
Help the government	61.0	68.1	72.5	62.6	73.3	62.5	61.1	62.9	59.9	77.4	85.7	80.0
Cost control	4.7	2.2	3.9	7.1	0.0	14.8	8.8	10.5	9.7	2.8	1.4	4.7
Others	9.4	6.6	2.0	16.1	23.4	15.9	5.0	3.2	5.6	6.9	5.8	4.7
	100	100	100	100	100	100	100	100	100	100	100	100

* Pay as you go, see text
Source: One day bed census survey in 4 hospitals in central (C), north (N), Northeast (NE) and south (S)

The same inpatient population was asked what should be the copayment rates for different levels of care, and if there was a cumulative annual maximal level for safeguarding further payment, what was the most agreeable level. The most popular rate for an outpatient visit at each level of care was as follows: a visit at health center - 30 baht, community hospital - 50 baht and provincial hospital - 100 baht. For hospitalization, copayment should be charged on a daily basis, per day rate for community hospital was 50 baht, and for provincial hospital was 100 baht per day. People from different regions had different levels of income, the average monthly income of patients in the central part was the highest while the north was the lowest. On average, the household income for the voluntary health cardholders was more than the low-income card, but less than the overall average. The maximal ceiling for paying the copayment within a year varied according to income level. (see Table 5.40). Figure 5.4 shows that the affordable level for most groups was less than 3,000 baht a year for each household.

Table 5.40: *Affordable Rate of Copayment*

		C			N			NE			S	
Rate	All	LICS	VHCS	All	LICS	VHCS	All	LICS	VHCS	All	LICS	VHCS
OP, HC, baht/visit	30	30	30	30	30	30	30	30	30	30	30	30
OP, CH, baht/visit	50	100	50	30	50	30	50	30	50	50	50	50
OP, PH, baht/visit	100	100	50	50	100	50	100	30	50	100	50	100
IP, CH baht/day	100	50	50	50	50	50	50	50	50	50	50	50
IP, PH, baht/day	100	100	100	100	100	100	100	100	100	100	100	100
Income, baht/month	4,904	2,586	5,237	2,903	987	1,529	3,087	1,541	2,556	3,211	2,161	2,686
Highest annual exp, baht/year	4,416	4,990	2,292	2,011	2,022	950	2,665	1,154	1,926	3,400	3,439	3,271



Source: One day bed census survey in 4 hospitals

Figure 5.4: *Annual Maximal Liability for Copayment (Y axis) by Monthly Income (X-axis)*

d. Management Capacity

In 1995, reinsurance and cross-boundary policies for the VHCS commenced to take account of the loss of some provinces with lower card coverage. The hospitals incurred high costs in treating the health cardholders and the cross-boundary cases are able to ask for reimbursement from the Health Insurance Office, as a 2.5 percent of the total 1,000 baht a card is retained at the Office for this purpose. In 1995-96, the first two years of implementing these policies, only 1.5-2.2 million baht was spent for the high cost reimbursement, and 1.4-3.4 baht for the cross-

boundary reimbursement. The 1997 figures were better in terms of completeness. About 1,591 outpatients and 4,032 inpatients submitted claims for reimbursement under the reinsurance policies. These amounted to 147.3 million baht. The Health Insurance Office applied the rules for reimbursement by items of service [29]/ and finally agreed to pay the hospitals 59 million baht (about 40% of 147.3 million). For cross-boundary cases, the scrutiny was less stringent then 74.6% (27.1 out of 36.3 million baht) of the submitted sum was approved. Assuming caseloads for this kind of reimbursement expands in the future, reimbursement on a case by case basis will be difficult to administer (see Table 5.41).

Table 5.41: *The Management of High Cost and Cross-Boundary Cases in 1997*

	High cost		Cross-boundary	
	Submitted	Approved	Submitted	Approved
OP	1,591	819	8,465	8,176
IP cases	4,032	2,989	2,279	2,079
IP days	92,550	77,645	19,849	18,303
Baht, million	147.318	59.077	36.279	27.057
Baht million in1996	Na	2.2	Na	1.4
Baht, million in 1995	Na	1.5	Na	3.4

4. Discussion

The policies of the VHCS need critical review now. There are four main issues related to cost recovery, equity and efficiency of the VHCS: i) defining the target groups, ii) raising the card price, iii) revising the service package, and iv) management efficiency.

a. Targeting

The first target group of the VHCS was farmers. Since then, the scheme has expanded to the urban areas but is not as popular there as in the rural areas. At the beginning, the VHCS had shifted demand for the low-income card to the voluntary health card in some provinces. This is not worrisome, but what worried the hospitals was that 'the rich' people bought the voluntary health card to avoid hospital fees, and they also consumed more hospital services. Thus, the VHCS increased the hospital's deficit in two ways: it increased expenditure and decreased revenue. This raises policy questions of defining the target groups. The alternatives are as follows:

- Limit card sales to the not rich and not poor vs. no targeting
- Refusing to sell the card to the chronically ill vs. no dumping

Since income is a dynamic parameter, many of the rich before the economic bust have become poor and are willing to buy the health card as a health security. However, the provincial health survey in 1995 said that only 2% of the health cardholders were the rich households (having monthly income of higher than 15,000 baht a month). So the problem of the rich buying the card is not large. The second point is that assessing income is not an easy task. Health personnel should withdraw from the task of evaluating income. They should focus themselves in providing

[29]/ A list of high cost items is used, the same as practiced under the SSS.

the most cost effective, equitable and good quality care. The local government should be the agency which selects those to whom cards are to be sold, to make the financing of the VHCS to be less regressive[30]/ and more equitable.

As already mentioned, health personnel advise the chronically ill who have no health insurance coverage to buy health card to get the continuous care. So dumping the chronically ill out of the VHCS should not be the main purpose of reducing the cost of the VHCS, because it will increase the expenditures of other schemes like the LICS. The 'not poor and not rich' will face a catastrophe if they face a long standing illness. Without a universal coverage policy, the VHCS is an alternative for them to have access to continuous care.

b. The Card Price

Cost recovery for the VHCS has been controversial since its inception. Should the VHCS be a cost recovery scheme or a welfare scheme is the fundamental issue. Since the LICS is totally a welfare scheme, the VHCS then should maintain cost recovery as one of its objectives. However, it should be stressed that cost recovery for the VHCS does not aim at transferring the whole cost to subscribers. Other public schemes also get public subsidy, e.g. 1/3 of the SSS fund is the government contribution, and nearly all of the CSMBS costs are borne by taxation. The government gives 1,000 baht subsidy for each card, whereas the costs per card are estimated to be about 2000 baht (or a subsidy level of 50%). Under this scenario, the cost of the card to consumers should be raised to 1000 baht per household.

Differential pricing is another issue to be discussed. The patterns of cost per card in Table 5.37 will change is it is presented in terms of cost per card by urban-rural area. The costs of services in urban areas are more expensive than in rural areas. The policy question is whether it is fair for the people in rural areas to cross-subsidize the cost of the VHCS in urban areas. Setting differential prices for urban and rural areas will shift sales from urban to rural areas. This policy issue should be addressed at the national level, whereas the implementation of sales would be better resolved at the local government level.

c. The Benefit Package

Cost recovery implies another aspect of containing cost. Demand and supply side interventions need to be in place. Referral line as well as copayment schemes should be considered to control the demand for unnecessary care. Differential copayments, i.e. paying higher rate at the higher level of care, provide signals that bypassing health facilities incurs additional costs to the system.

Trimming the benefit package to reduce the cost of VHCS should not be the strategy if Thailand is aiming for universal coverage, because the trimming will widen the gap of the package offered by the VHCS as compared to other insurance programs. Limiting the number of visits per card, reducing the number of people covered by the card, prohibiting uses of health facilities outside the province, and rejecting the coverage for self-inflicted diseases are a few examples of policies that are not worth adopting, even in the short run.

[30] The financing of the VHCS now is regressive because the price is set as a fixed rate, so the price as the proportion of income is high for the poor and very low for the rich.

d. Management Efficiency

The role of the Health Insurance Office needs strengthening and redesigning if it is to carry out its current functions and to move towards universal coverage policy. As discussed above, the sale of VHCS cards should be decentralized to the local administration, leaving the Health Insurance Office focusing on supply side interventions, such as, quality of care, reinsurance policy and cross-subsidizing between the high and low cost-recovery provinces.

The roles of local governments need to be considered as decentralization is an important issue in the Constitution. The local government should take part in providing additional sources of finance for the VHCS as well as the LICS. How the local government raises the funds, by selling differential prices to different households or by raising property-related taxes should be considered under the new tax reform agenda.

The Health Insurance Office has to strengthen its capacity in finding a formula to negotiate with local governments as to how much local resources have to be raised according to socioeconomic and other underprivileged measurements. The Office plays the important role in allocating 'equalisation budget' to match with the local needs, to match with the high cost and the cross-boundary cases. In the longer term, the team recommends that the Office be modified and strengthened into a 'National Health Financing Authority', an independent body to oversee the flows of fund from different sources and negotiate with health care providers to achieve the universal coverage for all Thai citizens [31]/.

5. Recommendations

Policies to make improvements in the VHCS can be considered as taking place in two phases - the short term and long term. Here, only short-term, non-radical, measures are considered, as the more wide-sweeping changes such as universal coverage are discussed in Chapter 6 and in the Final Integrated Report for this project.

- Raising the price of the card to cover costs.

  The estimated cost of care covered under the card is about 2,000 baht per card per year. If the subsidy from the government is fixed at 1,000 baht a card, then the price per card should be raised to 1,000 baht. To reflect differences in incomes and costs, the price in urban areas might be raised to 1,500 baht, or 2,000 baht for Bangkok to cover the cost of the urban health card and reduce cross subsidy from the rural health card.

- Collecting premiums more frequently during the year to allow the card to be more affordable.

  Raising the price will affect sale of the card and make it unaffordable to the borderline poor. An alternative mechanism is to spread premium collection throughout the year.

[31] / For further description of the NHFA see Chapter 6 of this report and the Final Integrated Report for this project.

- Require patients to follow a referral line from the district level to the provincial level in order to avoid differential copayments.

  Copayments have to be introduced to curb the unnecessary use. The introduction can be phased in, so that the urban facilities are introduced first and rural facilities later. The information system should be set to identify who cannot pay the copayments and this information sent to the responsible local governments.

- Decentralize the sale of the card to local governments, which should be encouraged to add their own resources.

  Consultation with the local government regarding their available resources should be undertaken. This move has to be in line with the issuing of the low-income card and the ultimate goal of moving toward universal coverage.

- Encourage a qualifying period to reduce adverse selection.

Enrollment to the SSS requires 3 months to be effective as an insured person. Buying a health card requires only 15 days to be effective. It is advisable to have similar qualifying periods to avoid patient dumping (e.g. the chronically ill) into more lenient insurance schemes.

E. THE LOW-INCOME CARD SCHEME (LICS)

1. Historical Background

Policies regarding the low-income card scheme (LICS) have been developed under several governments. The first initiative was in 1975, when the government aimed to reduce inequity by providing free medical care to the low-income population. Means tests were developed based on cash income to define the cut-off point for eligibility. At first, those eligible for the low-income card were defined as any individual with an income of less than 1,000 baht a month. By 1981, the low-income cards were being issued to the 10.9 million poor who passed the means test (about 23 percent of the total population).

After the 1983 International Year for the Elderly, health utilization statistics for the elderly were collected. At least four types of elderly were identified with regard to payment for health services: self-pay, the civil servant medical benefit, the low-income cardholders and type B low-income [32]/. In 1992, an explicit policy of providing free care for the elderly was announced in the Ministry of Public Health's regulations. In 1993, eligibility was further 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. For purposes of the LICS there are six types of people classified as underprivileged:

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

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

For purposes of this paper, the term "LICS" is meant to cover all types of beneficiaries of the medical welfare scheme for the underprivileged. At some points, "the poor" will be used to refer specifically to the low-income cardholders.

2. Problems with the Current Scheme

There are three major issues/problem areas for the LICS: targeting, cost recovery, and access and quality of care. The following is a short list of details related to these issues/problems. Information related to resolution of these issues/problems is presented in the following sections.

Targeting:

1. How many people are actually covered under the schemes?
2. How to counteract overlapping coverage: LICS, VHCS, CSMBS, and others?
3. How to improve means testing processes: differential poverty lines for different provinces, community processes to identify the poor?
4. Do the other 'underprivileged' groups need this health benefit, e.g. the elderly, children under 12 years old, the handicapped, religious leaders?
5. How to provide coverage for the "near" poor group who have no coverage and face high medical bills? Should a 'universal coverage' or 'catastrophic illness' approach be adopted?

Cost Containment:

1. 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?
2. Due to high coverage of the population and low government budget, the schemes are severely under-funded.
3. How to allocate the LICs budget more equitable and more efficiently? Should the focus be only on the allocation of LICS budget, or should it also include the 'ordinary' recurrent budget of the Provincial Hospital and Rural Health Divisions?
4. How can the allocation of health funds within provinces be made more equitable?

Access and Quality of Care:

1. How to ensure acceptable standard of medical services to the poor regardless of ability to pay, as specified in the new Constitution?

a. Population Coverage and Targeting the Poor

In 1981, 10.9 million people were issued the low-income card. 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 single person and 2,000 baht a month for the whole family. In 1993, this was further raised in 1993 to 2,000 baht a month for single person, and 2,800 baht a month for a family. The number of low-income cardholders dropped in 1987 to just 7.6 million, but rose again in 1990. The numbers of beneficiaries in 1998 dropped to only 5.8 million because the target groups of the non-poor underprivileged schemes were excluded, and a new means testing has been applied (described in details 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 5.42).

Table 5.42: *Number of the Low-income Cardholders (in million) by Region, Thailand, 1981-1998*

	1981	1984	1987	1990	1993?	1998[1]	1998[2]
Central	1.840	1.656	1.293	1.816	1.816?	0.749	3.242
Northeast	4.985	4.522	3.500	5.573	5.573?	2.972	8.137
North	2.966	2.717	1.850	2.390	2.390?	1.395	3.935
South	1.101	1.232	978	1.639	1.639?	0.648	2.326
Bangkok	0	0.029	0.022	0.077	0.077?	0.017	0.031
Total	10.892	10.156	7.643	11.495	11.82?	5.792	17.671

Notes:

[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: Rural Health Division, MOPH.

Since 1994, the number of people covered by the LICS has been unclear because of the overlap of target groups, especially the elderly and children under 12, who if they are also in poor households would qualify twice. It has become common that the issuance of the cards is based on age characteristics rather than to family units. Therefore, the Bureau of Budget asked the MOPH to clarify the actual number of beneficiaries. They estimated in 1997 that 41 percent of the total population was covered by the LICS, and plan to have actual figures from the next round of card issuance.

b. Leakage in Card Issuance

The issuing of the low-income cards to the poor has inherent biases. A first evaluation was carried out by the Rural Health Division in 1980, through sampling of users at 513 health providers in 9 provinces. Twelve percent of the low-income cardholders at provincial and district hospitals and 9 percent at health centers, had income higher than 2,000 baht a month, and hence should not have been given the cards. A second evaluation was carried out by the Rural Health Division and Mahidol University in 1988, through 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 the low-income population was 62 percent. Moreover, 21 percent of the cardholders were not poor, and 72 percent of the poor did not acquire the cards [33]/.

Due to high leakage, strategies used in the 1990's to increase effective coverage and to reduce misclassification have been:

- Active finding of the target groups.
- Expanding the targets to cover the handicapped, the elderly, landless farmers, and marginal workers.
- Active disseminating of information.
- Active facilitation of the card application process.

The third national evaluation of the LICS by the NIDA in 1996 showed no improvement in targeting the poor. One third of surveyed households were poor, and only 32 percent of them had the low-income cards. Furthermore, among the low-income cardholders, only 55 percent of them were poor according to family income criteria. In short, the effective coverage rates[34] 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 [35]/. The study recommended two approaches to counteract the leakage of card issuance:

- The first approach is to improve poverty measurement. The cut-off point for the poor would be reduced to 10,000 baht per person per year, but the current assets should not be higher than 571,000 baht. Means testing 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 household dependency ratio higher than 0.50.

- The second approach relies on internal audit. Active finding of eligibles would be established to find the poor households instead of disseminating of information to general public. Applying the social guide process in the community survey and screening out the non-poor families by combination of criteria. The process of screening the poor should be reexamined annually.

These recommendations were adopted in the latest round of card issuance.

c. New Poverty Lines and the Performance to Achieve Targets

Until 1998, determination of the cut-off point for low-income cardholders was the same for people in urban and rural areas. The cut-off point for a single poor individual in 1988 was 4 times the poverty line, and for a poor family was 1.5 times of the poverty line in rural or urban

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[33]/ This study was somewhat biased because the prevalence of the poor in rural area by the National Statistical Office's survey was only 44 percent of the rural households, therefore, the percentage of the poor that did not have the card should have been lower.

[34]/ 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).

[35] / Again, there were problems on sampling methods of comparing the results from both national surveys.

areas (Mongkolsmai 1993). The cut-off points were neither designed for rural/urban settings nor updated periodically (see Table 5.43).

Table 5.43: *Poverty Lines and Cut-off Points of Means Tests, Thailand, 1975/6 – 1977/8*

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-off point baht/mth						
Single	1,000	1,000	1,500	1,500	2,000	2,000
Family	-	-	2,000	2,000	2,800	2,800

Sources: Poverty lines from Hutaserani, 1992.

In 1997, the National Economic and Social Development Board (NESDB) proposed a new methodology for estimating poverty lines. Four variables are included as determinants of poverty: number of 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 households with different characteristics. On average, the new method set 473 baht/person/month as a poverty line for 1988 (5,676 baht/person/year or 1,845 baht/family/month assuming 3.9 members per family) and 636 for 1994 (7,632 baht/person/year or 2,480 baht/family/month assuming 3.9 members per family).

The MOPH adopted the NESDB definition of poverty lines. However, applying these cut-offs to certify the eligible families/individuals proved to be very difficult. The MOPH finally decided to apply varying poverty lines at the macro-level. Specifically, data from the NSO's socioeconomic 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 1997-98.

The social guide process has also been advocated whereby each province would set up community committees to scrutinize applications. Table 5.44 compares the performance of issuing different types of the underprivileged cards as against the targets. The highest performance was achieved by the issuing of the cards to veterans because they already have the cards issued by the veterans' office. The second highest was the issuing of the low-income card, 89 percent of the specified target (sd 166.1 percent). The lowest on the list was the issuing of the cards to the monks and religious leaders (36 percent of the target). Figures 5.5 and 5.6 show the variations of performance by provinces and by types of cards. In Figure 5.5, the performances for issuing the low-income and the disabled cards in some provinces were excluded because they were outliers (e.g. Angthong issued 44,391 low-income cards over the as compared to a target of 3,078). Twenty-five provinces issued the low-income cards higher than the targets (incentives for doing this will be discussed later). Bangkok was the lowest performer on the list, only 38 percent of the target was issued the low-income cards.

Table 5.44: *Target and Performance of LIC Issuance (in millions), Thailand, 1998*

Groups	Target	Issued	Percent
Low-income	6.48	5.79	89.49
0-12	13.37	6.92	51.86
Student	2.54	1.42	55.9
Handicapped	0.18	0.13	72.0
Veterans	0.11	0.11	100.0
Monks/ religious leaders	0.33	0.12	36.2
Elderly	4.68	3.13	66.8
Temporary	-	0.06	-
Total	27.69	17.67	63.8

Source: The Health Insurance Office, MOPH.

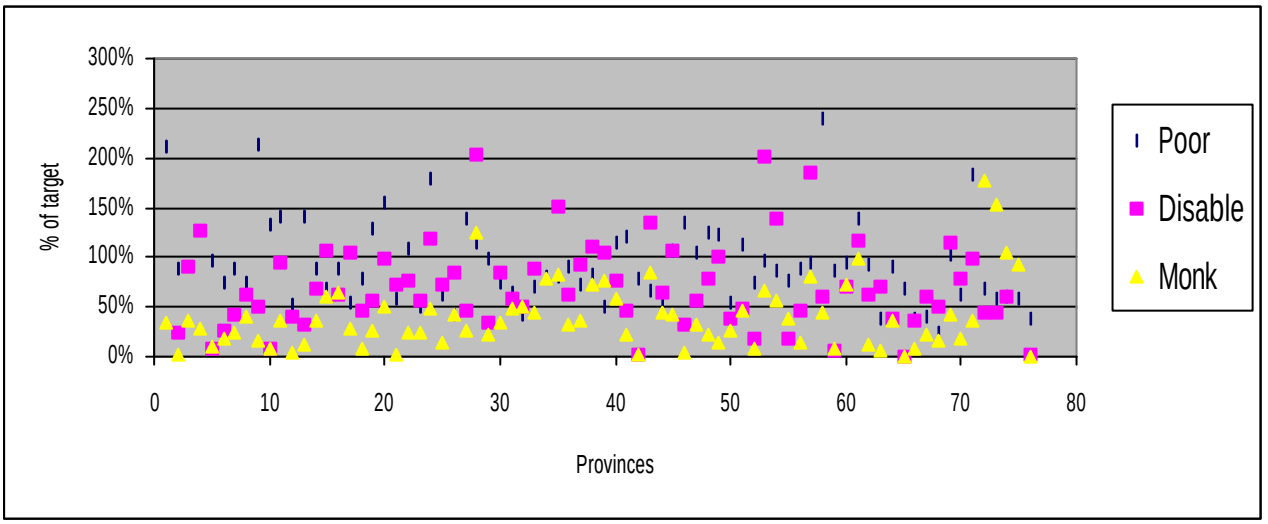

Figure 5.5: *Percent of Target Issued to the Low-income, Disabled and Monks by Province*

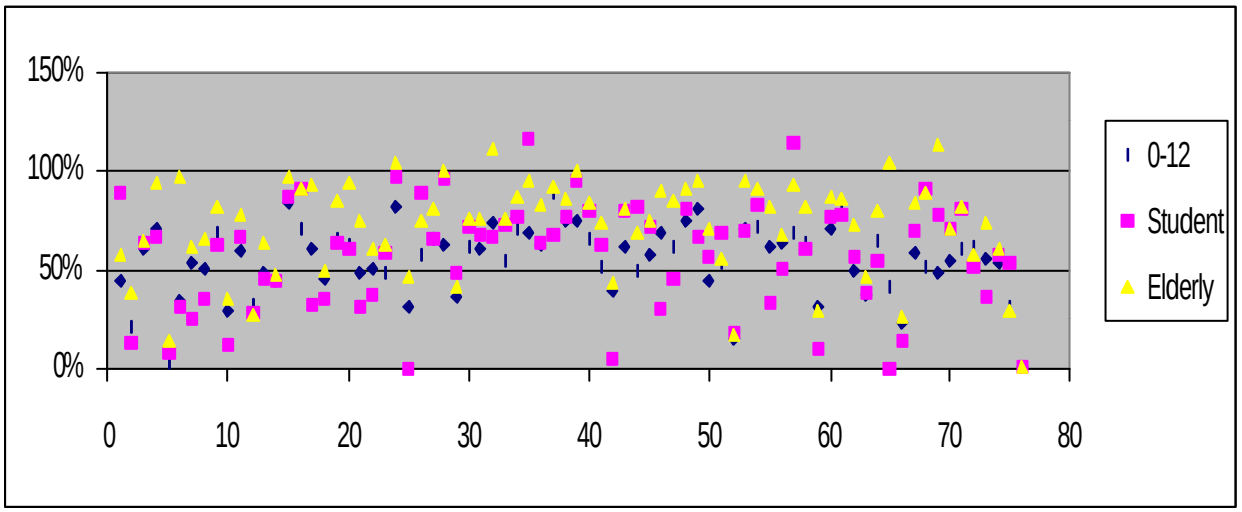

Figure 5.6: *Percentage of Target Issued to Children under 12, Students and the Elderly by Province, Thailand, 1998*

The performance of meeting the targets for issuing cards to the underprivileged populations is best for the low-income group. This reflects the fact that income has been used as a means to target the LIC for years. Using more precise characteristics such as age may have raised the question as to whether the target group was poor enough to have the cards so the application and issuance of cards showed low achievement. Bangkok was the area least successful in achieving card distribution for all card types (overall average was 2 percent of all types of target), because the community process is Bangkok is weak, and perhaps the target groups did not put high value for having any cards. At the present time, the evaluations for effective coverage and correct target rates are going on.

2. Discussion and Recommendations

The previous review of data documents the difficulty of issuing cards. Recommendations from previous research always say that community mechanisms should be applied to the selection processes of the poor. However, when ask the community leaders on this issue, their statements put some doubt as to the efficacy of this approach:

"Yes, there are no other mechanisms. We know who are poor and who are not. But the final decision to refuse issuing card, should be made by the authorities concerned, not us". (Community leader, Ayuthaya urban area)

"In the village, every member is one another 's relative. There are no criteria to say who is wealthy or who is poor to the level that should receive welfare. The best way is to make everybody equal". (Community Saving Fund, Songkhla rural area)

"The Municipality tried to ask community leaders to look for the poor and issue them the low-income card, but they did not do that effectively. They submit the names of their relatives, which we had to scrutinize their family history". (Lord Mayor, Hat Yai Municipality)

One idea is to link card issuing with the financing mechanism of the local government. Politicians at the local government level, and the community leaders who work with the community saving fund, are very receptive to this idea. The central government would give the local government a capitation budget for the estimated number of low-income individuals under the budget line called "general subsidy". The local government would then be responsible for responsible for financing health care for the poor. When the central budget allocated is not sufficient, the local government may mobilize other funding by seeking approval from the local parliament. Community leaders from the saving fund said they already paid seventy percent of the medical bills of government facilities for their members out of the dividend of the community saving fund.

Expanding the targets of the LICS to cover other underprivileged groups is being debated. It is recommended that people should be identified by their personal characteristics, not their membership within a family. For example, the elderly from the poor families should be counted as the poor, and only the poor elderly should be the target of the LICS. The same principle

should be applied for children under 12, students, the handicapped, and religious leaders. This principle will trim down the target groups of the LICS by at least a third.

The following recommendations can be drawn from this part:

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

3. Financing the LICS

This section deals with the financing and budget allocation of the LICS. As the schemes have been expanded rapidly, questions arise whether the schemes are under-funded.

a. Government Budget for the LICS

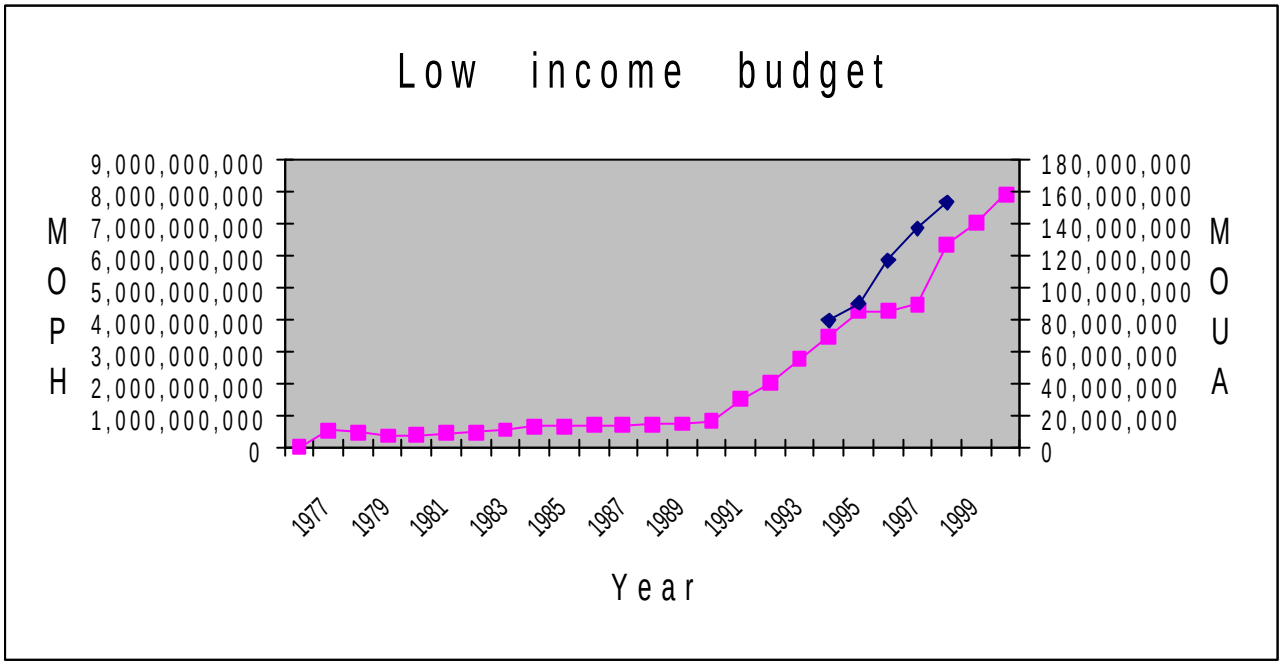

Figure 5.7 The Government Budget for the LICS from 1976 to 1999 (at Current Prices)

The government budget for the LICS started at 520 million baht in 1976, and reached almost 8 billion baht in 1999. Apart from the MOPH, the governments also allocate the low-income budget to hospitals under the Ministry of University Affairs (MOUA). Figure 5.7 shows that the budget for the LICS had been stable from 1976 to 1989, since then it increased significantly. In terms of the LICS budget per capita it has increased since 1981 in both nominal and real terms (see Table 5.45).

Table 5.45: *Changes in LICS Allocations Per Capita, Thailand, 1981 – 1999*

YEAR	NOMINAL	REAL '96 BAHT
1981	42	83
1990	131	183
1995	212	214
1999 (targets)	287	249
1999 (cards distrib)	450	391
% Change '81-'99		371.1%

b. Expenditure of the LICS

Reported figures of expenditure from public facilities for a few years are presented in Table 5.46 In 1987, before a sharp rise in the LICS budget, reported expenditure was almost 3 times of the budget. In 1991, holding the number of LICS beneficiaries 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 3 fold, and expenditure increased almost 4 times (42 percent higher than the budget). In summary, while the nominal expenditure per capita increased from 270 baht in 1987 to 361 baht in 1997, it declined in real terms from 442 baht in 1987 to 348 in 1997 – a decline of 21 percent.

Table 5.46: Budget and Expenditure of the LICS, Thailand, 1987 - 1997

Year	Budget	Expenditure	Type A	Type B	Percent 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. Expenditures are not true measures of costs of service, rather of the charges not paid by LICS patients.

Type B low-income patients play significant part in the delivery of care under the LICS. The Type B population are the poor who do not have low-income cards. Before the expansion of coverage to the underprivileged, expenditure of type B was 47 to 57 percent higher than expenditure of the low-income cardholders (type A). In 1997, this was reduced to 19 percent of the expenditure as the groups of beneficiaries expanded in 1990 to include the disabled, the elderly, and children under 12 years of age. It should be noted that type A expenditure increased more than type B expenditure. However, type B expenditure was not reduced.

Estimating per capita expenditure by using reporting data is shown in Table 5.47. Applying the number of the covered persons under each scheme from Table 5.44 to the utilization data, the utilization rates could be estimated for 1998. The elderly on average made 3.9 visits for outpatient services each year, and were admitted 0.18 times a year. A visit by an elderly person cost about 108 baht, and a hospitalization cost 3,889 baht. The per capita expenditure of the elderly therefore was the highest at 1,110 baht. The second on the list was per capita expenditure for the disabled, 965 baht, because of their 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 level of expenditure is quite comparable with the adjusted per capita budget for 1999 of 450 baht.

Table 5.47: *Utilization Rates, Charges per Case and Per Capita Expenditure in Baht, LICS, Thailand, 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

The above expenditure (see Table 5.47) did not include expenses for Type B low-income patients, because it is not known how many people should be used as the denominator. Analysis of Type B expenditure is important because this is the outlet for the poor who have no card, and the non-poor who face catastrophic health expenditure.

c. Resource Allocation

The problem of under-funding the LICS has worsened by inequitable allocation of the LICS budget among provinces. In 1988, the per capita budget allocated to the Northeast was 54 baht as compared to 76 baht for the wealthy Central Region (disparity index between the highest to lowest was 1.4). In 1990, when the LICS budget almost doubled, the disparity between the highest and lowest increased to 4.1. This disparity continued up through 1994 but improves after 1996 (see Table 5.48 and Table 5.52).

Table 5.48: *Per Capita LICS Budget (in baht) Allocated to Regions, Thailand, 1988 to 1994*

	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

Disparity exists because of the disproportionate distribution of Type B low-income patients among provinces and regions. Before 1995, when the coverage of the LICS had not been expanded to the other disadvantaged groups, type B patients determined the largest portion of resource allocation. About 40 to 50 percent of total budgets were allocated according to workloads, because workloads better reflected uses of services by type B. During 1996 to 1997, resource allocation formulae were used as a tool to distributed the low-income budget. When the Budget Bureau insisted that the low-income budget should be meant for the LICS only and budget for type B patients be identified under item 300 of the Rural Health and Provincial Hospital Divisions, the concepts for allocating the LICS budget changed again. The MOPH

proposed using a full capitation model in the year 2000, by strengthening the registration of the underprivileged to primary care providers. It will take 3 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 5.49).

Table 5.49: *Weights Given for Allocation of the LICS Budget, Thailand, 1990/1 - 2000*

Year		Weights given for
1990-91	60% 40%	The number of LIC Use of service
1992-93	50% 50%	The number of LIC Use of service
1994	45% 20% 20% 10% 5%	Use of services The number of population The number of LIC The number of health facilities Specific problem in the province
1995	50% 25% 20% 5%	The weighted number of workload The number of LIC The number of population Preventive and promotive activities
1996	-	Pop adjusted by SMR, OP visit, IP days, Average income, Availability of regional hospital
1997	-	Number of LIC Weighted number of OP, IP cases
1998	50% 50%	Capitation rate Utilization of services
1999	75% 25%	Capitation rate Utilization of services
2000	100%	Full capitation

In 1999, the MOPH proposed to allocate a budget of 7.95 billion baht as outlined in Figure 5.8. As usual, 2.5 percent is kept aside for reinsurance policy. The rest of 97.5 percent is for all public health facilities.

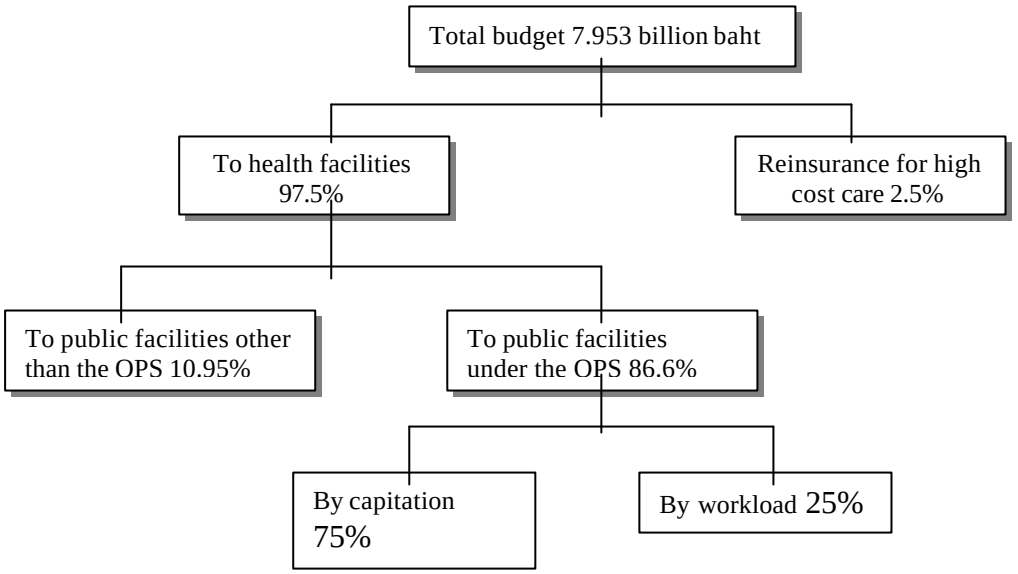

Figure 5.8: *Allocation of the Low-income Budget in 1999*

As the Office of the Permanent Secretary (OPS) owns a large network of health facilities outside Bangkok, 86.6 percent of the total budget is the main source of allocation to 75 provinces. In 1999, 75 percent of OPS budget are allocated by head counts of cardholders, and 25 percent allocated according to workload. The capitation rates are set differentially according to per capita expenditure in Table 5.45. As mentioned before, the targets for all types of cardholders were set centrally [36]/, the performances of card issuance varied between types of individuals covered and between provinces. Provinces have incentives to issue more cards because they expected to have higher sum of capitation budget without any financial contributions. The solution to this problem is to blend both sources of information.

There are three steps to determining the allocation of budget by workload. First, the level of the previous year's outpatient services is weighted by standardized outpatient weights [37]/ for different levels of care. Second, the previous year's inpatient admissions are weighted with DRG relative weights [38]/. Third, reported figures on expenditure are used to estimate cost by multiplying with cost to charge ratio [39]/, then constructing a model to allocate the budget according the ratio and weights of outpatient visits to inpatient admissions.

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[36]/ 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.

[37]/ The standardized 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

[38]/ The standardized DRG weights for inpatients: community hospital 0.6736, general hospital 0.833, and regional hospital 1.0763

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

Allocation of the 11.0 percent of the total budget to health facilities under other Ministries than the Office of the Permanent Secretary is based on history rather than output, because the reporting system among these facilities has not been standardized and the mix of outputs varies. Comparing the budget in 1998 with the estimated expenditure for the same year, we can see that many facilities (12 out of 16) had more than what they spent (see Table 5.50). The highest spender was the Thai Red Cross (or Chulalongkorn Hospital) which spent about 461 million baht, 5 times higher than the low-income budget. Without good output measurement, e.g. DRG case-mix, the MOPH was inclined to allocate additional budget in 1999 to only 4 facilities, which reported higher spending.

The facilities listed in Table 5.50 received low-income budget through the MOPH. However, the Budget Bureau also allocates the low-income budget directly to the some medical schools in and outside Bangkok, i.e. Siriraj and Ramathibodi of Mahidol, Chiangmai, Khon Kaen, Songkhlanakarin and Srinagarinwirot Universities. As medical schools are the highest referral facility, they do not have registration lists of the underprivileged on which a capitation budget can be based. Rather they have more severe cases than other facilities, and allocation of budget to them should be based on a case-mix index. Unfortunately, the case-mix system has just been recently developed. The low-income budgets to medical universities also under-funded. Table 5.51 shows that cost recovery of the LICS of medical school was only 15 percent of the expenditure. It should be noted that Thammasat University has got two sources of low-income budget, i.e. through the MOPH and directly from the Budget Bureau.

Table 5.50: *Budget Allocation to Public Health Facilities other than the Office of Permanent Secretary, Thailand, 1996 - 1999*

	Previous year allocation				Expenditure
Ownership	**1996**	**1997**	**1998**	**Proposed 99**	**1998**
Dept of Health	28,348,000	34,533,000	**34,533,000**	34,533,000	**23,234,260**
Dept of Mental Health	81,437,000	99,281,000	**99,281,000**	99,281,000	**65,835,721**
Dept of Medical Services	159,800,000	197,280,000	**240,686,000**	285,689,361	**319,303,121**
Dept of Disease Control	78,668,000	94,535,000	**94,535,000**	94,535,000	**44,792,140**
Dept of Medical Science		7,000,000	-	-	-
Teaching Colleges in MOPH	4,500,000	5,000,000	-	-	-
Dept of Medical Military Troop	55,881,000	61,469,000	**61,469,000**	61,469,000	**32,025,815**
Dept of Medical Air Force	16,588,000	18,247,000	**24,136,000**	27,980,126	**25,542,323**
The Thai Red Cross	24,805,000	32,246,000	**40,427,000**	90,125,513	**461,750,101**
Somdej Na Sriraja Hospital	7,047,000	7,752,000	**7,752,000**	7,752,000	**4,660,172**
Police Hospital	19,837,000	21,821,000	**21,821,000**	21,821,000	**14,580,643**
Dept of Medical Navy	14,481,000	15,929,000	**15,929,000**	15,929,000	**12,239,899**
Thammasat University	4,000,000	5,400,000	**5,400,000**	5,400,000	**4,197,949**
Dept of Correction	1,100,000	2,210,000	-	-	-
Cholprathan Hospital	7,726,000	8,499,000	**8,499,000**	8,499,000	**2,610,643**
Border Police Office	2,563,000	2,819,000	**2,819,000**	2,819,000	**1,396,964**
Bangkok Metropolitan, Health	20,619,000	22,681,000	**22,681,000**	22,681,000	**18,474,977**
Bangkok Metropolitan, Medical	57,241,000	70,486,000	**70,486,000**	70,486,000	**47,566,692**
Total	584,641,000	707,188,000	**750,454,000**	849,000,000	**1,078,211,420**

Table 5.51: *The LICS Budget and Spending for Medical Schools, Thailand, 1995*

Hospital	Budget	Spending	percent
Ramathibodi	13,787,000	117,523,686	11.73
CMU	35,100,000	236,019,778	14.87
Srinagarinwirot	2,698,400	10,127,509	26.64
Thammasat	2,400,000	6,668,663	35.99
Total	53,985,400	370,339,636	14.58

d. Resource Allocation Formulae

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 (Laoratanasai 1994), that the non-labor recurrent budget to provinces (BG1) was a function of both demand and supply variables. The demand variable utilized was the number of population adjusted by standardized mortality ratio (SMR) (Pop_{adj}) of each province. The supply variables included number of days staying in community hospital (LOSC), days staying in provincial hospital (LOSP) and number of outpatient visits at community hospital (NOPDC).

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

The second model developed 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 provincial hospital.

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

The third model (BG3) predicted the recurrent budget (include labor and the low-income), this model was heavily dominated by supply variables, e.g. number of beds at provincial hospital (NBEDP), net revenue of provincial hospital at the year end (NREV).

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

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 hospital (LOS), the presence of regional hospital (R) and average income of people in the province (Y).

$1996\ EXP = 14{,}085{,}039 + 39Pop_{adj} + 3OPD + 353LOS + 9580R - 139Y$

The modification of 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 weighted number of OPD and IPD.

1997 Budget = 13,290,178 + 130 Insured + 340 OPD + 550 IPD

As a results of the application of the resource allocation formulae, the disparity index was reduced from 4.1 in 1994 to 1.4 in 1996 and further to 1.2 in 1999 when the 75 percent capitation rate is applied (see Tables 5.47 and 5.51).

Table 5.52: *Per Capita Budget (in baht) Allocated to Regions, Thailand, 1996 - 1999*

	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

* used old figures of insured people
** used new figures of insured people

e. Reinsurance Reimbursement

The reinsurance policy for 1998 was utilized by hospitals which sent 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 allocated based on grouping the data into diagnosis related groups (DRGs) with the attached relative weight. Patient records from 109 public hospitals were analysed. Twenty (20) percent of cases were financed by 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 linked with a financing mechanism looks promising for better monitoring of resource use.

4. Discussion on Current Reforms

The following summarizes what has been taking place with LICS policy and implementation:

- New differential poverty lines applied as the means test.

  As discussed above, use of new differential poverty lines for each area in the provinces has given rise to some problems. Some provinces have been more active than others in issuing the cards in order to get more capitation funds. This process needs a thorough evaluation regarding whether next round of card issuing (in 2001) will be based on the same methodology. However, the issuance of the card should be decentralized to the local government and linked to local contributions to financing as discussed earlier.

- Information system set up to count the number of eligibles under the LICS.

To respond to the request of the Bureau of Budget, the Health Insurance Office has tried to set up an information system to count the number of the people enrolled under the LICS. This system has just been put in place, but shortly evaluation of this system will be necessary for designing next round of card issuance.

- A registration system set up such that each individual must register with a primary care provider.

  Allocating resources on a capitation basis requires a good registration system of cardholders to primary care providers. This may be an ambitious goal in terms of an information system to check the integrity of data and update the movement of people who change their primary care providers. Nonetheless, making people choose their providers is a good step to educate them to follow the referral line.

- Target setting for allocating budget to provinces on a full capitation basis by the year 2000.

  A target has already been set that the LICS budget will be allocated to provinces on a full capitation basis by the year 2000. The problems of cross-boundary flows have to be critically analyzed if the capitation rate is to be further used down to district level.

- Reinsurance policy is strengthened as well as establishing a case-based information system.

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

- Law drafted using a 'universal coverage' approach.

  Attempts to move towards universal coverage have been made since the 1993 health financing conference in Thailand. One attempt focused on drafting legislation as a means to achieve move forward. However, there is no consensus that a law is the most viable strategy to achieve universal coverage.

5. Recommendations

Under funding is the main problem of the LICS. Policies on the LICS have been expanded rapidly to cover both the poor and the underprivileged. Though the budget per capita also increased, the under funding still exists as compared to other public insurance schemes. The following are recommended short term policies are recommended to counteract this underfunding:

- 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 field testing. It is worth evaluating how effective the differential poverty lines are in picking out the poor. The list size of the poor could be smaller or bigger, but the government will be more willing to allocate adequate budget for the poor.

- The cards should be distributed by local communities based on their information about indigency.

  Trimming the target of the LICS by focusing on only the poor is a strategy to limit public subsidy to the needy. This will complement efforts to have local governments contribute to pay for health services for the indigent among their populations.

- Link the card issuance with financing.

  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 to the system. It should be mentioned again that financing the scheme here is only for a part of the total. Whether the local contribution covers only the copayments for the indigents, or a percentage of the capitation rate should be further studied.

- 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 card holder should be required to register with a primary care provider, and the referral line followed. Copayments should be charged if the card holder bypasses the facility.

- The MOPH should finance the LICS on a weighted capitation basis, and 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 now being set up will be a good basis for resource allocation for both demand and supply sides.

- Set up a budget line for catastrophic illness for those who are excluded from the LICS.

  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.

F. SUMMARY OF RECOMMENDATIONS

This chapter has provided detailed information about the problems experienced with the publically supported health insurance schemes, and insurance policy decision-making processes

and outcomes. The following section aims to recap the principal recommendations, and to show how the recommendations relate to each other.

Regarding the Civil Servants Medical Benefit Scheme (CSMBS), substantial progress regarding cost control has been achieved through the introduction of demand side measures. The most important recommendation of the team is that supply side measures should also be adopted, specifically that the CSMBS should move away from fee-for-service reimbursement to either a system based on DRGs under a global budget, or inclusive capitation. It would be fortunate if the CSMBS were to delegate management of the scheme to the SSO which has experience in operating a capitated scheme, and this would lower administrative costs. Measures have to be taken with any capitated program to ensure the quality of the services provided. Thailand is just now embarking on a program of hospital accreditation, and more remains to be done in monitoring the quality of patient care, e.g. through medical record audits.

The objective of expanding insurance coverage to more of the Thai population is the central principal behind the recommendations to reform the Social Security Scheme (SSS). Specifically the team recommends that the scheme be expanded to enroll the spouse and dependents of employees currently in the scheme, the self-employed, and those recently retrenched. For retrenched workers, effort should be made to adjust the hospital registration to match the new location of any worker. This will provide coverage for the worker and reduce the problem of hospitals being paid for persons to whom they do not provide care. Since the contribution rate to the scheme will be reduced for three years (1998 – 2000) care must be taken to manage the financial reserves carefully. Payment for high cost cases should be especially monitored.

The Workman's Compensation Scheme (WCS) covers the same population as the SSS. Thus it is recommended that the two programs be merged. This would entail adding 162 baht to the current capitation rate of 1000 baht. In addition, funds would be set aside for emergency cases not treated by the registered hospital. Another part of the funds would be set aside to improve workplace safety. Other components of the WCS such as the assessment of risk-adjusted employer collections; and employee cash benefit, and death compensation would remain the same.

The Voluntary Health Card Scheme (VHCS) has evolved from a set of revolving funds to support primary care activities to a subsidized form of health insurance coverage. The team concurs with the TAG recommendation that this program should be targeted for the near poor, i.e. those ineligible for the SSS but with sufficient income to be ineligible for the Low-income Card Scheme (LICS). The card should be repriced to cover the full costs of providing care, i.e. the price of the card should be the difference between the costs of care for this population group, minus the 1000 baht subsidy provided by the government. Prices in urban areas might be higher than rural areas to reflect differences in the cost of care. These price increases may be more feasible if premiums are collected on a periodic basis, rather than once a year. To strengthen the referral system, copayments should be instituted to provide an incentive to obtain care at the appropriate level of the health system. Cards should be distributed by local government as they will be able to distinguish between families eligible for the low-income as compared to the voluntary card.

The Low-income Card Scheme (LICS), is basically a social welfare program for the poor. The funds allocated to the program should come from both central and local government, depending upon the ability to pay and the number of low-income population to be covered. Cards should be distributed by local government, which can apply means testing based on the new poverty guidelines. Eligibles should be required to enroll with a primary care provider, and to follow the referral chain, in order to avoid paying fees or copayments. A special fund should be created to pay for catastrophic illness occurring among the low-income population.

Other recommendations regarding health insurance in Thailand appear in Chapter VI.

CHAPTER VI
FUTURE REFORM OF HEALTH CARE FINANCING IN THAILAND

A. OBJECTIVES OF FINANCING STRATEGY

There are several objectives that a strategy for health care financing can aim to achieve. The most important of these may be:

- Universal Coverage.
- Equity – in access, vertical (those who can pay more do), horizontal (those with the same condition are charged the same amount).
- Efficiency – technical and allocative.
- Cost Control (e.g. through reduction in frivolous use and unnecessary use of technology).
- Provision of quality services.

In addition, policy makers may wish to design health care financing strategies that are:

- Acceptable to consumers (e.g. allow for provider choice).
- Acceptable to providers (e.g. allow freedom in choice of treatment provided, result in timely payment).
- Low administrative cost.
- Provide positive incentives for innovation.
- Provide appropriate incentives for investment (i.e. in human and physical capital).
- Reduce the potential for fraud and abuse.

In trying to develop a financing strategy that can reach some of these objectives, a country must be realistic about the financial resources it has to allocate to the system, and the human and information system capacities that exist to manage the system.

To reach the primary objectives, it may be necessary for a country to compromise the extent to which they can achieve the secondary objectives. For example, capitation as a provider payment mechanism is successful at constraining costs. However, it requires that the patient select, or be assigned to, a provider (or group of providers) – who may not be the provider(s) of choice for all illnesses.

The section below reviews the dimensions along which the Thai government will have to make some policy decisions in order to achieve universal coverage. This section is followed by a description of two phases for the reform of the mechanisms for allocating and managing health financing resources at the provincial level and below. The Health Financing TA Working Group, and the Hospital Autonomy TA Working Group believe that movement towards a system along these lines would result in greater equity between provinces, lower administrative costs, greater efficiency, and improved referrals within provinces.

B. MOVEMENT TOWARDS UNIFICATION OF SCHEMES

The process of moving away from Thailand's current pluralistic system of payments for medical services [40]/ is problematic. This is because it has evolved over a long period of time, and different stakeholders will defend their established benefits and payment mechanisms, even though at the institutional (hospital) level, these payments cross-subsidize care for the less fortunate.

Given this system of cross-subsidization, there are dangers to changing one payment mechanism, e.g. the CSMBS, without having unwanted effects on the care provided to other patients. Efforts must be made on many "fronts" at the same time to ensure that the net result is an improvement over the system.

First, it will be important for the government to establish that its budget allocation is for care for the poor, care for those with catastrophic illness, and for public health services. Full cost coverage through payment of capitated amounts could be estimated for the first two groups [41]/. Program budgeting could be used to allocate budget for public health services. The MOPH budget could be allocated to and within provinces according to population-based criteria, rather than by line item budgeting as it currently the case. Additional budget will have to be set aside for certain central activities like disease control, health education, teaching status, training, etc.

Second, efforts to move towards inclusive capitation adjusted by DRGs, or other criteria like age and sex, for the CSMBS as is the case for the SSS, will bring this program closer to the SSS programs in terms of benefits and capitation. Incorporating the WCS under the SSS will not significantly affect this comparison as the additional capitation for WCS in conjunction with SSS is relatively small. In addition, the SSO should make efforts to expand coverage to dependents, small businesses and entrepreneurs, and the recently retrenched.

Third, the greatest challenge will be to get those paying user fees to pool their risks by enrolling in the VHCS. The Technical Advisory Group (TAG) advised that the government subsidy should not be different than the subsidy for other groups, and that the premium paid by the patient should cover the remainder of the costs of care. However, there is a great variation in the income of various groups and likewise in their health expenditures. To move towards vertical equality, a different capitation amount might be charged to individuals in different employment categories (e.g. entrepreneurs as compared to landholders). This may be an appropriate policy to adopt as those in urban areas use more sophisticates services with higher costs. To ease the financial burden of this increase on households, smaller payments could be collected monthly, such as is the case for utilities. The expansion of the VHCS could be made mandatory for those not covered under another mechanism.

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[40] / Public health services are not considered here, as it is assumed that they will continue to be primarily subsidized through the government budget. Equity can be achieved by allocating allocating budget for preventive and promotive services based on population, health need (SMRs) , and local income.

Implicit in these recommendations are the assumptions that:

- Adjusted capitation (preferably with global budgets) will be politically palatable to the Thai population and to Thai providers. Capitation under the SSS has gained a poor reputation because of low quality of care. The MOPH must strengthen its regulatory and monitoring functions to ensure that good quality care is provided to those covered under capitated insurance.

- The private sector has to be allowed to compete to serve the capitated population. To reduce their tendency to "cream skim" (i.e. accept the healthy, low risk populations), there should be an annual open enrollment period during which households can decide with which facility to enroll. To maintain the option of self-treatment and the viability of private pharmacies, the capitation amount might cover the costs of drugs only over a maximum limit per year.

- An additional requirement to be worked out regards payment for patients transferred from one facility to another. Initially this might be done with the referring hospital paying fee-for-service for the referred patients. This will encourage the referring hospital to follow-up on the care provided to the referred patients, and reduce the tendency under fee-for-service reimbursement to over-treat.

The next section describes in more detail the dimensions along which Thailand must make policy choices regarding universal coverage, and some detail about a proposed model called the Swedish-Singapore-Thai (SST) model.

C. UNIVERSAL COVERAGE

There are at least five dimensions along which Thailand must make decisions in order to achieve universal coverage. These five dimensions relate to choices about the:

- Benefit package.
- Institution that provides services.
- Provider payment mechanism.
- Financing sources.
- Institution that pays providers.

Benefit Package

Currently in Thailand, the policy aims to provide full benefits for the entire population, however care is rationed by virtue of the inequities in the distribution of personnel and facilities, and in the public subsidies allocated for those covered by different insurance programs.

An appropriate question to ask is whether universal coverage, with a complete benefit package (all preventive, and health promotive and curative services), is financially feasible for Thailand? One can start to answer this question by referring to the calculations in the annex of the Referral Report prepared for this study project. The calculations in this annex estimate that the annual per capita cost of a basic essential package of services (preventive, promotive, and basic curative

services) woud cost 835 baht. If added to this is the estimated annual per capita cost for coverage for catastrophic illness of 205 baht, the total annual per capita cost comes to 1040 baht. Multiplying by a population of 60 million, the total annual cost is estimated to be 62.4 billion baht.

Another approach is to take the highest estimated cost to the government and households under an approach called the SST (see Annex D) of 56.5 billion baht. Add to this the cost of providing care to CSMBS beneficiaries of 16.3 billion baht, the cost of providing care to SSS beneficiaries of 3.9 billion baht, and 3.2 billion baht for the purchase of drugs by patients, for a total of estimated direct patient care costs of 79.5 billion baht. Then add to this an estimated expenditure for administration of 4.8 billion baht (6%), and for preventive and promotive care of 8.0 billion baht (10%) for a estimated full cost to provide health services to the Thai population of 92.3 billion baht. This is only 86 percent of the total public and private health expenditure of 107.9 billion baht estimated in the 1994 national health accounts. The above analysis suggests that between public and private sector health expenditure that *enough resources exist to provide everyone with a rather comprehensive health benefit package*. Thus the challenge is to improve the efficiency of health expenditures, and the equitable distribution of financial resources.

Institution that Provides Services

Both the public and private sectors provide health services in Thailand. Private sector services are principally located in the urban areas, while public services dominate in rural areas. Competition between the two providers for patients, particularly under a system of capitation, is healthy, in that the providers cannot compete on price, so they must compete on the quality of the services they provide [42]/. On the other hand, the public and private sectors might collaborate in the provision of services, sharing personnel and technology in efficient ways. The degree of competition or collaboration will depend on the rules and regulations guiding the use of public and private funds, and the incentives to form partnerships.

Provider Payment Mechanism

There are many provider payment mechanisms currently in use in Thailand. MOPH facilities receive government budget paid out of general tax revenue, and also collect fee-for-services. The CSMBS and WCS pay on a fee-for-service basis. The SSS and VHCS pay on a capitated basis and DRGs are used to determine the reimbursement for high cost cases. Provinces receive a lump sum budget for the LICS. Each payment mechanism has advantages and disadvantages in terms of its affect on consumer, and particularly provider behavior. In general, the health insurance programs in Thailand are moving to reimburse based on weighted capitation. The team recommends that the determination of the budget subsidy for government health facilities take the form of a block grant, which would be based on criteria such as capitation. In addition, small tiered user fees are recommended to provide some deterrent to moral hazard. Should a household be unable to pay the user fees because of the size of the household, its low-income, or

[42] / This assumes that the private sector cannot "cream skim" – that is select the best health risks and therefore maximuze profits by minimizing costs. If all providers were required to have open enrollment periods, during which they could not refuse to enroll anyone who selected them as provider, then "cream ckimming" would be minimized.

a household member with chronic illness, the household will be exempted from the fees over a certain maximal threshold, which will be paid by the local government,

Financing Sources

Financing sources can include central government and local taxes, insurance premia, and fees-for-service. When the VHCS and LICS are merged, this will form a compulsory insurance scheme (apart from the rest of the population covered by the CSMBS and SSS). The team proposes that the main sources of financing for this compulsory scheme be general taxes raised at the national level, and property-linked taxes raised by local governments. It is estimated that the nominal user fees will raise 20 percent of the needed revenue for this compulsory program – thus the remaining 80 percent must come from taxes.

Institution that Pays Providers

Currently Thailand has many "payors", each with their own set of prices. As the country moves towards a more unified set of prices through capitation, it is also possible to move towards a single payor – a National Health Financing Authority (NHFA). Advantages of this move are that it provides monopsony power to the financing agent to give it greater power in negotiating with provider organizations over benefit package and payment, ability to more equitably distribute financial resources, and reduce administrative costs. Disadvantages are that there will be the need to delineate the funds that go to the single payor, apart from those that go to the central MOPH; and that the single payor might be subjected to intense political pressure to allocate funds in ways that are not efficient nor equitable.

The SST Model

The Swedish-Singapore-Thai (SST) model is a proposed future health financing model for Thailand which draws on aspects of the Swedish and Singapore systems, but also retains some elements of the current Thai system. Under the SST model there would be 3 major populations: the CSMBS beneficiaries, the SSS beneficiaries, and all of the remaining population (or the SST population). Key features of the proposed system are that it is primarily tax-financed, with minimal copayments and a maximal household liability to protect those with high cost illnesses. If a household is too poor to pay the copayment, then the local government will make funds available to cover these costs. A schedule of proposed copayment charges is provided in Table 6.1. Consumers however will have a choice of their health care, paying more for amenities if they should want them. In this way, the scheme reflects the Singaporean system. It is estimated that approximately 80 percent of the total costs will come from tax revenue, with 20 percent made up from the copayments.

Table 6.1: *Suggested Charge Schedule for Accredited Service Providers under SST*

	Average Cost	Copayment
Ambulatory visit at registered PHC	150 baht	50 baht
Ambulatory visit at accredited hospitals	300 baht	150 baht
Admission in Ward A (luxury) per day*	800 baht*	1000 baht*
Admission in Ward B (semi-private)/day	1200 baht	900 baht
Admission in Ward C (common)	800 baht	200 baht

* Only routine service costs and payment shown above. Ward A patients must pay all additional charges for room, board, and clinical services at full cost.

Another aspect of the system is that all public and private hospitals can apply to be accredited. Once accredited, the hospitals must report on services provided in order to get payment on a contractual basis.

D. NEW HEALTH FINANCING INSTITUTIONS

The Health Financing working group has been studying how the government financing of district and provincial health facilities might be altered to achieve a number of objectives. These objectives include:

- Improved efficiency in resources use, value for money, and health outcome.
- Reduced duplication in use of budgetary resources, and increased synergy between programs.
- Prompt response to health needs in a specific locality and increased social accountability.
- Equitable allocation of government financial resources to provinces based on health needs and considerations of other available financial resources for health.

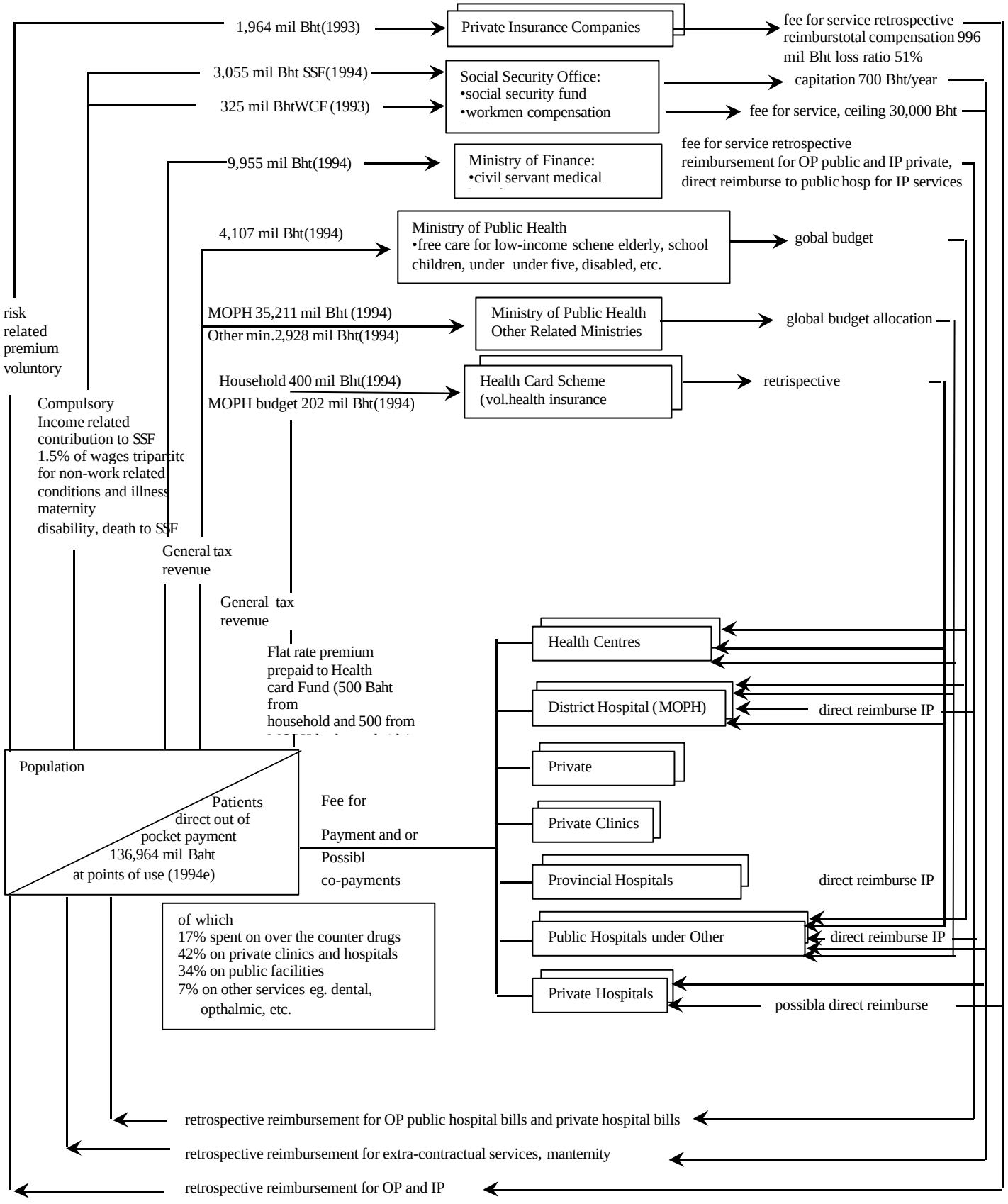
The strategies for achieving these objectives is as follows:

- Greater decentralization to Provincial Health Boards (PHB, to be defined below) regarding health planning, budget preparation, program implementation, and budget execution in response to local health needs.
- Increased civil participation in health matters.
- Increased role in performance auditing by the central MOPH, the Budget Bureau, and the Auditor General.
- Unification of recurrent budget from MOPH in the short run into block grants to the provincial level. In the longer run, unification of all payor organizations into a National Health Financing Authority.

The point of departure is an understanding of the current health service delivery structures at the provincial level and their financing (see Figure 6.1). The figure shows that funding for public sector health facilities flows through the Provincial Health Office (PHO), which provides financing for the facilities by means of global budgets (by line item) and fee-for-service (under the VHCS). Financing for public and private sector health facilities can come from the SSS and CSMBS/WCS on a capitation and fee-for-service basis respectively. Private insurance pays for

services on a fee-for-service basis. Patients pay a significant level of the revenue of the facilities and to pharmacies through user fees/charges.

Figure 6.1 Current Health Financing System, Thailand, 1994



It is proposed that in the future the PHO be transformed from a conduit for separate budgetary line items for facilities and programs into a purchaser of services. This new entity [43]/ would be called a Provincial Health Board (PHB) [44]/. While many of its current functions would remain the same, new functions other than purchasing services include: raising additional financing from local sources, and increasing local participation in decision-making (see Table 6.1).

Table 6.1: ***Comparison of the Roles of the PHO with those Proposed for a PHB***

CURRENT ROLES OF THE PHO	PROPOSED ROLES OF A PHB
Health Promotion (1)	Public Health Functions (1)
Disease Control (1)	Health Services Purchasing and Allocation of Financing (2)
Health Care Reform & Health Insurance (2)	Legal Enforcement [45]/
Pharmacy (3)	Planning, Monitoring, & Evaluation (4)
Planning and Evaluation (4)	Administration (5)
Administration (5)	Raising Additional Financing from Local Sources
PCMO and Deputy (5)	Including Local Participation in Decision-Making

Funds from all MOPH sources for non-capital, recurrent expenses would be allocated through a block grant formula to the PHBs, which would then contract with providers in the public or private sector to provide services on a capitated basis. Depending on the outcome of current studies district hospitals could be given the role of fund holders and purchase services at the provincial hospital on a fee-for-service basis for the patients registered with them. In addition, the district hospitals would form local health delivery systems by integrating with the nearby health centers. The PHB would finance public health services through program budgets administered by the DHOs (see Figure 6.2). Patients would pay small copayments for services provided by hospitals, with the copayment set at a higher level for the services provided at a provincial hospital.

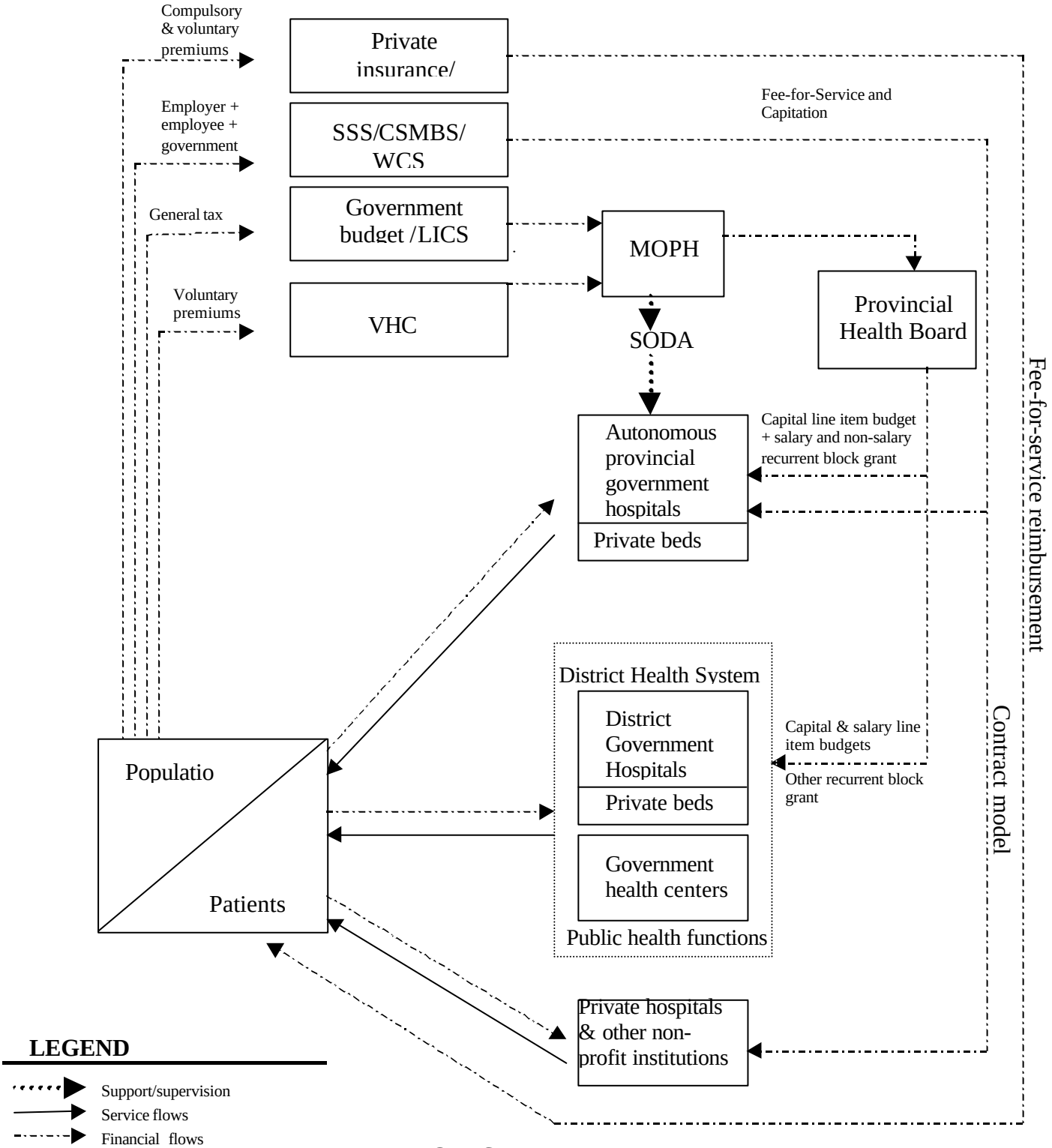
[43] / The reformation of the PHO into a PHB would leave many of the same functions with the orgranization and in that sense it is not "new".

[44] / In addition to its purchasing function, the PHB would have the following responsibilities: a) public health functions, b) legal enforcement (e.g. of drug policy), c) planning, monitoring and evaluation, and d) administration.

[45] Special legislation would have to be written to allow the PHB to enforce health legislation, e.g. consumer protection laws.

Figure 6.2: Proposed Health Financing System, Phase I

(draft 11.3.99)



FFS = fee for service
CSMBS = Civil Service Medical Benefit Scheme
SSS = Social Security Scheme
VHC = Voluntary Health Card
LICS = Low-income Card Scheme
TAPS = Traffic Accident Protection Scheme
WCS = Workmen's Compensation Scheme

NOTES:

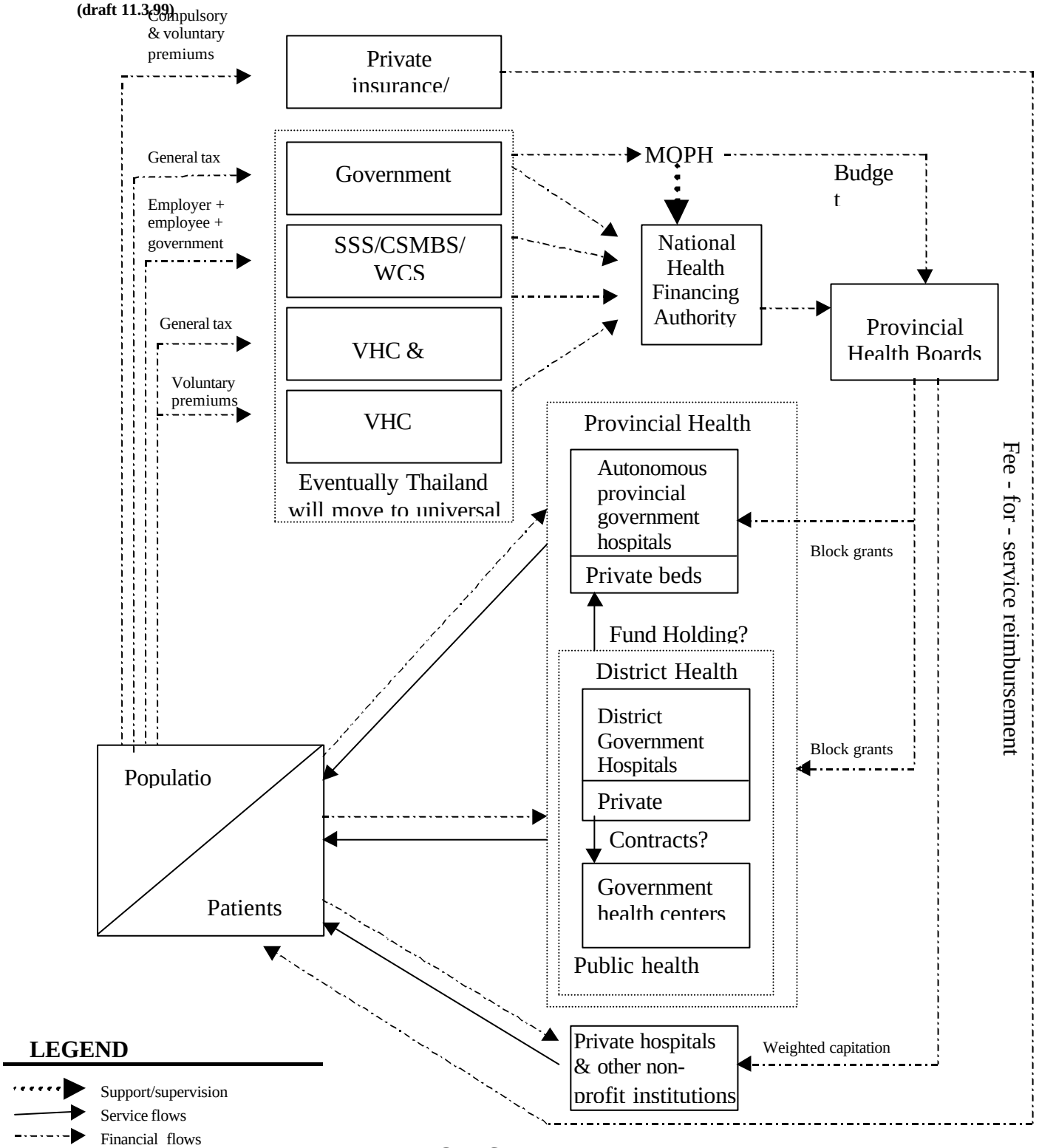
Co-payments between patients & providers.
Full cost recovery in private beds/hospitals.
District Health Office is part of District Coordinated System
Urban & rural districts treated the same
No decentralization to municipalities

In the longer run, to bring more coherence to the financing of health services in Thailand, the team recommends that a National Health Financing Authority (NHFA) be created which will have a role somewhere along the following continuum. At one extreme the NHFA would coordinate the flows of health funds from the CSMBS, SSS, and to the MOPH (including the VHCS and LICS) to the provincial level. At the other extreme, the funds from all of these sources would be pooled for distribution to the provinces (see Figure 6.3). Advantages to moving towards a single payor include the potential for improving the efficiency with which funds are used, as the payor will be able to use its monopsony power to negotiate fair rates for payment, and will reduce the costs of administrative overlap. In addition, with a single payor there is more opportunity for equitable distribution of resources as the total picture regarding health financing is in one organization. Among the problems with trying to move towards a single payor are the entrenched interests of current payors and their beneficiaries, and the possibility that the agency would come under tremendous political pressure to distribute according to political agendas.

It is also important to consider what mechanism(s) is necessary to bring about changes in health financing policy and strategy. An inter-ministerial committee might be developed to address these broad issues. Current efforts to draft a National Health Insurance Law should be given more emphasis by the political parties as well as the bureaucracy. Given the experience in other countries (e.g. Colombia, Philippines), there is much to be said for development of policy and legislation by a small technical group working under a committed and dynamic leader within the MOPH, with “champions” in the political arena.

Figure 6.3: Proposed Health Financing System, Phase II

(draft 11.3.99)



FFS = fee for service
CSMBS = Civil Service Medical Benefit Scheme
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VHC = Voluntary Health Card
LICS = Low-income Card Scheme
TAPS = Traffic Accident Protection Scheme
WCS = Workmen's Compensation Scheme

NOTES:

Co-payments between patients & providers.
Full cost recovery in private beds/hospitals.
Provincial & District Health Office is part of Provincial Coordinated System
Urban and rural provinces & districts treated the same
Need for law to authorize and give authority for this model to be implemented

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APPENDIX C
POLITICAL MAPPING

I. POLITICAL MAPPING ANALYSIS FOR CSMBS REFORM

Major Stakeholders

Major stake holders	
1. RECIPIENT OF THE SCHEME	4. BUREAUCRATS
• Civil Servant Association	• NESDB
• CSC Office	5. POLITICAL PARTY AND POLITICIAN
• Beneficiary - seven million	• Prime minister
2. PROVIDERS	• Finance minister
• MOPH hospitals – major provider	• Health minister
• Non-MOPH hospitals (esp. teaching hospitals)	• Labor minister
• Private hospitals	• Opposition party
• Private Hospital Association	• Senate Health Committee
• MOPH: permanent secretary, deputies	• Lower House Health Committee
• Rural Doctor Association	6. GENERAL PUBLIC
3. FINANCE AND FINANCING CARRIER	• General Public
• Private insurance companies	• Media : low grade newspaper
• Insurance Association	• Media - high grade newspaper
• Budget Bureau	• TV public
• SSO	• TV private ITV
• MOF-CGD	• Radio

Technical notes:

1. This "political map" is based on the experience over the past three years dealing with the CSMBS reform, meeting with all major stakeholders, meeting deliberations, press analysis, and available documents.
2. Assessment of their "power" is based on subjective assessment.
3. After fine tuning, this type of working document is useful for strategic planning for a successful reform implementation.
4. Overall scoring = +106.0 to +133.0. The higher the score the more feasible the reform.

Major stake holders	Consequences – impact of reform / background related to positions	Position -5 to +5	Power +1 to +5	SCORE -25 to +25	Linkage with other stakeholders	Strategy approach for a successful reform.
I . RECIPIENT OF THE SCHEME				**-13.0**		
1. Civil Servant Association (Mr. Kajadbhai Burudpat)	• No direct effects from reform, except jumping to protect beneficiary	-3.0	+4.0	-12.0	• Possible provide mis-lead information to esp. media on negative consequence to beneficiaries • Possible close link with media. • By nature, will react negatively to gain votes.	• Clear and concise message • Probe its stand before convincing ± involve the Association in the reform processes. • Alliance with the media before it was mis-lead by the Association.
2. CSC Office	• Representing the civil servant medical fringe benefit scheme, • Awareness and need for reform. • participated as a member in HSRI appointed reform committee	+2.0	+2.0	+4.0		
3. Beneficiary	• Same coverage to current officials, pensioners and up to 6 dependants. • Previously free choice for ambulatory care → limited choice at registered provider but changeable annually when dissatisfied or change of domicile. • Gain as they are allowed to register public or private providers for OP care; formerly only access to public • Gain if equal access to public and private IP care; formerly substantial (~50%) copayment for private IP care. • Resist if copay for OP and IP care is introduced.	-2.5	+2.0	-5.0	They echo voice and potentiate their concerns through • Media • CS Association • Prime minister • Opposition party • CSC Office	• Confirm that the reform maintains beneficiary coverage. • Clear-cut, concise message on beneficiary coverage and benefit package → almost status quo. • Alliance with media, provide information on bad behaviour and problem of old system, advocate merit of new system • Alliance with tax payer • Alliance with MOPH hospital authority to guarantee quality of care and accessibility
II . PROVIDERS				**-17.75 to +9.25**		
1. MOPH hospitals (major provider)	• The reform transfers financial risk from MOF to providers – uncertainty on hospital revenue. • Terminate "Robin Hood - cross subsidy" function. • Require management capacity and cost saving strategies. • Require data handing capacity • Subject to clinical and financial audit • Anxiety over delay of cash disbursement from global budget + DRG system. Not the case for OP capitation rate which is prepaid each month.	-0.5	+2.5	-1.25	• Pretty well prepared and ready to comply with the policy. • Familiar with DRG system under reinsurance mechanism for LIC and Health Card.	• Clear message. • Assurance of financial adequacy and timely disbursement. • Need strong audit and punishment to protect the good behaved and punish the bad behaved.

Major stake holders	Consequences – impact of reform / background related to positions	Position -5 to +5	Power +1 to +5	SCORE -25 to +25	Linkage with other stakeholders	Strategy approach for a successful reform.
	• Question over the technical feasibility and appropriateness of resource allocation using DRG. • Organisation culture: discipline, listen and comply to policy. • Financial implication base on previous magnitude of dependence on CSMBS budget.					
2. Non-MOPH hospitals (esp. teaching hospitals)	• Similar consequence as MOPH hospitals, • CSMBS major source of extra-budgetary income • Unfamiliar with DRG • Financial anxiety if DRG does not compensate for higher cost due to teaching element. • Highly individualistic, no discipline, dissimilar to MOPH • Some members participated as a member in HSRI appointed reform committee • Teaching hospital patients are mainly very high social status and high rank government officers → Stronger voice.	-3.0	+3.5	-10.5		
3. Private hospitals	• Position depends very much on whether they are allowed to join providing IP care to beneficiaries → likely that they are allowed to join. • They will gain if allowed to join the Scheme both OP and IP, since 20August Royal Decree amendment terminate access to private IP care. • Weaker voice than Priv Hosp Association. • Past poor image and bad behave (false claim, abuses) → ill felling and reluctant to allow their participation in the Scheme and fear of potential abuse DRG system and cost quality trade-off under capitation system.	+4.0	+3.0	+12.0 -12.0 [if not allowed to join the Scheme]		
4. Private Hospital Association	• Likely to strong advocate participation of private hospitals in the Scheme.	+5.0	+3.0	+15.0 -15.0 [if not allowed to join]		
5. MOPH: permanent secretary, deputies	• Well informed on the reform concept and direction • Financial implications to MOPH hospitals is unpredictable, termination of cross-subsidy function. • participated as a member in HSRI appointed reform committee • Likely to comply with MOF reform policy	+3.0	+5.0	+15.0		• Clear and concise message must be made. • Clear analysis on financial implications towards MOPH h
6. Rural Doctor Association	•	+2.0	+3.0	+6.0		
III . FINANCE AND FINANCING CARRIER				**+31.0**		
1. Private insurance	• Strongly against the reform direction, discredit through the notions: “cost focus will jeopardise	-4.0	+2.0	-8.0	• Strong political alliance. • Strong money power, the	• Alliance with public (MOPH and non MOPH hospitals) to voice against private insurance

Major stake holders	Consequences – impact of reform / background related to positions	Position -5 to +5	Power +1 to +5	SCORE -25 to +25	Linkage with other stakeholders	Strategy approach for a successful reform.
company (Apex health care, Sri-Auydhya CMG, other private insurance)	quality of care, beneficiaries are major losers" • As CSMBS has the highest market potential, 15 billion Baht annual outlay, 7 million beneficiaries, middle class → wanting to take over the Scheme totally by one firm or partially (multiple sickness funds) by several firms mainly on HMO / PPO arrangements. → likely to form several competitive private insurance plans. • Actually they are not against the need for reform but strongly against the CSMBS being managed by an autonomous non-profit entity (i.e. Civil Servant Health Fund Office). They want the MOF to transfer all the responsibility to private insurance companies. • Possible to take 10-15% profit out of the Scheme and significant copay by beneficiaries. • However, private insurance got bad name and bad behave from Traffic Accident Insurance Act.				case of Traffic Accident Protection Act is a classical illustration.	taking over the Scheme, based on the painful experience under the Traffic Accident Victim Protection Act. • Possible alliance with private hospital if private insurance is another cream-skimming agency.
2. Insurance Association	• Work hand in glove with private insurance companies. It is an official speaker for insurance companies. • Strong lobbying power.	-4.0	-2.0	-8.0	• Strong political alliance and money power.	• Similar strategy. • Generally bad behave insurance companies under the Traffic Accident Protection Act should be uncovered to the public. • A national compulsory scheme should not be managed on an for-profit orientation
3. Budget Bureau	• There is an awareness and need for reform • Strongly support if reform can contain cost in long term and improved efficiency • participated as a member in HSRI appointed reform committee	+3.0	+4.0	+12.0		
4. SSO	• Reform direction is along the line with SSO contract model, but a few step advance than sole capitation for OP and IP care. • participated as a member in HSRI appointed reform committee	+5.0	+3.0	+15.0		
5. MOF-CGD	• Before October98, there is a high turnover of deputy DG responsible this matter, CSMBS is a low priority in relation to other public finance issues under crisis and IMF arrangements. • Latest briefing (Oct 8, 98) to DG and deputy was rather positive but they still question why budget ceiling + DRG, why not pure DRG? • There is an awareness and need for reform, but all questions must be satisfied by all concerned parties. • participated as a member in HSRI appointed reform committee • Still have some technical questions, e.g. MIS, clinical data handling, how to manage the variation of	+4.0	+5.0	+20.0		• Policy level briefing + technical briefing to DG, deputy, and other technical level staff.

Major stake holders	Consequences – impact of reform / background related to positions	Position -5 to +5	Power +1 to +5	SCORE -25 to +25	Linkage with other stakeholders	Strategy approach for a successful reform.
	compensation to hospitals (Baht per DRG weight) in each month / quarter. • MOF-CGD seems to have a final say either for or against the reform.					
IV. BUREAUCRATS				**+15.0**		
1. NESDB	• As a central planning body, well aware of the Scheme problem, • participated as a member in HSRI appointed reform committee	+5.0	+3.0	+15.0		
V . POLITICAL PARTY AND POLITICIAN				**+63.0**		
1. Prime minister	• Well aware of need for reform • Strongly support to reform, but not involve in technical detail, • depends very much on responsible Finance Minister	+4.0	+5.0	+20.0		
2. Finance minister	• Deputy finance minister is keen in SSS, as he provides consultation on the management of SS Fund investment. • Well understand the issue, content and context.	+5.0	+4.5	+22.5		
3. Health minister	• Rather remote to CSMBS, except MOPH is the major health care providers in the country and impact of termination of financial implication from the reform	+3.0	+4.0	+12.0		
4. Labor minister	• Last labor minister was keen to take over CSMBS to be administered under the same umbrella of SSS using inclusive capitation rate for OP and IP care • Power is rather remote to CSMBS	+4.0	+3.0	+12.0		
5. Opposition party	• As a rule, it will react to oppose every government policy to gain votes from the civil servants • A strong trend to co-ordinate and coalise all opposition stakeholders in an united front against the reform.	-4.0	+4.0	-16.0		
6. Senate Health Committee	• Well aware of and need for reform.	+3.0	+2.5	+7.5		
7. Lower House Health Committee	• The House deals with hot issue in relation to health, member are representative from both the government and opposition parties • If will informed, they choose to represent general public than civil servants → pro reform	+2.0	+2.5	+5.0		
VI . GENERAL PUBLIC				**+27.5**		
1. General Public	• As tax payer, sensitive towards the Scheme inefficiency and higher budget subsidy >2,000 Baht per capita, compared to the Low-income Scheme, 270 Baht / capita → then need to reform. • Easily moved by Media.	+5.0	+2.5	+12.5		

Major stake holders	Consequences – impact of reform / background related to positions	Position -5 to +5	Power +1 to +5	SCORE -25 to +25	Linkage with other stakeholders	Strategy approach for a successful reform.
2. Media : low grade newspaper	• The media in Thailand usually shapes, provoke and lead the general public view and motion. • May not play the issue • Likely to coalise with opposition parties and stakeholders to hit against reform.	-1.0	+5.0	-5.0		
3. Media - high grade newspaper	• The media in Thailand usually shapes, provoke and lead the general public view and motion. • Rather reasonable and listen to the problem.	+1.0	+5.0	+5.0		
4. TV public (Channel 3, 5, 9, 7, 11)	• The media in Thailand usually shapes, provoke and lead the general public view and motion.	+1.0	+5.0	+5.0		
5. TV private ITV	• The media in Thailand usually shapes, provoke and lead the general public view and motion.	+1.0	+5.0	+5.0		
6. Radio	• The media in Thailand usually shapes, provoke and lead the general public view and motion.	+1.0	+5.0	+5.0		

II. POLITICAL MAPPING: THE SST MODEL FOR UNIVERSAL COVERAGE

Samrit Srithamrongswat

Technical notes:

1. This map is based on the information from group discussions and interviews in four provinces during August and September and various discussions in the MOPH.
2. This map will be used for further explorations of scheme specific attitudes towards the SST model.
3. Information presented in this table needs more checks for accuracy.

Major stakeholders	Consequences – impact of reform/ Background related to positions	Position -5 to +5	Power +1 to +5	Linkage with other stakeholders	Strategic approach for a successful reform
Beneficiaries	• The low-income and the underprivileged – pay the copayment previously paid on a voluntary basis. • General population accept the policy but they were not clear whether they had to pay higher taxes.	-1 +3	+1 +2	The low-income have little voice. Mass media may use the issue to dramatize the bad effects of copayments.	The government still exempts copayments by issuing card.
The Budget Bureau, NESDB	• They are not comfortable about the rationale of covering all people. Budget requirement is thought to be high.	-4	+4	The NESDB screens the projects to be financed by taxation. Politicians can influence both NESDB and the Budget Bureau.	Simulation of data to forecast financial requirement.
The government	• The government is too occupied with other political issues and with amending the macro-financial crisis.	0	+5	The Ministers of Finance, Public Health, University Affairs and other social sector ministers have to set strong agenda.	Simulation of data to forecast financial requirement.
Local governments	• They are responsive to people's need. If they only involve in financing the copayment for the poor, they are very capable.	+4	3+	They have little money from tax-raising scheme. New legislation to decentralize taxation system will facilitate the new responsibility.	Tax reforms and legislation to delegate the responsibility.
Political parties	• They do not have visions on the universal coverage policy, however no party is against putting more tax money for the underprivileged.	+1	+4	Politicians almost make regular visits to their constituencies. Mass media can raise awareness of the policy to the public and the public feed into the	Mass media and community process.

				political party agenda.	
Major stakeholders	Consequences – impact of reform/ Background related to positions	Position -5 to +5	Power +1 to +5	Linkage with other stakeholders	Strategic approach for a successful reform
The MOPH	• The Health Insurance Office strongly supports this policy. • The other divisions and departments may see this as a threat as it may reduce normal budget to their organizations.	+5 -1	+3 +1	The MOPH proposes the budget requirements to the Budget Bureau. There are arguments between each other as the data for calculation are not reliable.	Strengthen capacity to handle and process good and reliable data.
The Universities	• The teaching hospitals were sceptic with past experiences of health policies drawn up by the MOPH. They were less willing to participate in the LICS and VHCS because they had not been objectively reimbursed on the cost basis. • The teaching hospitals do not see universal coverage policy as s threat to their financial status, if all patients are reimbursed accordingly, and teaching budget as well.	-2 +2	+2 +2	Teaching hospitals receive budget straight from the Budget Bureau without any considerations regarding locality (no regional planning).	Set up Regional Health Board to make regional planning.
Provincial Health Offices	Provincial Health Board will be set up at the provincial level to manage contracts and evaluate performance.	+4	+2	Provincial Health Board coordinates all health financing data with the provincial finance section for the CSMBS and the provincial SSO.	Capacity strengthening.
Provincial and district hospitals	Hospitals are satisfied with the policy if their budgets are related to their performance.	+2	+2	They work for all varieties of target groups.	Give them a good level of autonomy.
Health centres	They thought that if copayments are set differentially according to level of care, this confirms that health centres are of the lowest quality to the community.	+1	+1	They are first line contact with people in the community.	Quality improvement.
Private hospitals and clinics	Private sectors are willing to participate if the capitation rate and DRG base are set according to cost incur in private sectors.	+1	+2	They have strong lobbying power, but since the budget is low they may not participate.	Provide adequate budget for the policy, however, with strong monitoring and evaluation system and wait until the economy recovers.

ANNEX D
SST FINANCIAL REQUIREMENTS

The main features of the SST (Swedish, Singaporean, Thai) model of payment for health services are a mix between the tax financing for UC of the rest of the population with a fixed maximal annual liability per household as described by the Swedish system. However, users have choice to pay for their health care according to their ability to pay as one main feature of the Singaporean system. As Thailand's trend moves toward decentralization, the local government will share a supplementary source of finance for the indigent and the underprivileged. Advantages of this model over the other presented above are the shared responsibilities, the payment as choice and simplicity. More details on the financial scenarios with the SST Model are presented below.

These estimations are based on the analyses made on the 1996 Health and Welfare Survey (HWS) of the National Statistical Office (NSO).

The objective is to forecast financial requirements to operate the SST model for achieving universal coverage.

Assumptions:
Assumptions are simply based on:
- the reporting of illness and uses of health services by the NSO-HWS
- unit costs of health services at health centre (HC), community hospital (CH) and provincial hospital (PH).

Target populations:
Households not covered by the CSMBS and SSS by area of residence (from the HWS, see Table D.1).

Copayment level:
Determine differently according to level of care:
- OP services at HC 30, CH 50 and PH 100 baht a visit.
- IP services at CH 50 and PH 100 baht/day, or CH 100 and PH 200 baht/day.
- Assume that no households are exempted from copayment; ie very few households exceed the threshold level set as an annual liability, and for the indigent –the local governments will help them pay the copayment.

Financial requirements:
Applying the illness rates, seeking behaviors (see Table D.2) and hospitalization experiences (see Table D.3) of the general population to the SST covered group, and multiplying with the cost of each level of care (see Table D.4), it is estimated that the cost to the government would be 34.2 billion baht (scenario 1) or 40.9 billion (scenario2). If there is a shift of services from private services to public (both OP and IP), the cost would increase to 56.5 billion baht (scenario 3). Because the CSMBS and SSS households may not be all family members, so scenario 4 and 5 show how the size

of the SST group may expand with the consequences of costs to the government. The range will be from 39 to 47 billion baht.

User charges will be substituted with a fixed schedule of copayments, however, copayment will constitute about 16 to 20% of the total government expenditure.

This estimation is somewhat lower than what had been estimated before. Pannarunothai and Wongkanaratnakul (1996) [46]/ estimated that the universal coverage policy will cost the government about 70 billion baht. The differences are from different approach in estimating illness rates. The pervious study approached by age group while this study approach through residence area.

Table D.1: *Proportion of Households Covered by the CSMBS and SSS and the rest for SST*

	All hh	CSMBS	SSS	SST
Urban	3,875,800	0.217	0.035	2,899,098
Suburb	1,738,600	0.166	0.015	1,423,913
Rural	10,814,000	0.076	0.004	9,948,880

Table D.2: *Illness Experiences and Proportion of Uses for OP Services*

	Households	Member	Ill	HC	CH	PH	Priv
Urban	2,899,098	3.66	3.224	0.026	0.034	0.211	0.361
Suburb	1,423,913	3.71	3.952	0.097	0.168	0.135	0.252
Rural	9,948,880	4.00	4.498	0.239	0.143	0.117	0.160
	14,271,892						

Table D.3: *Admission rates and Proportion of Use for different types of Hospitals*

	Admission	CH	PH	Priv
Urban	0.051	0.078	0.68	0.334
Suburb	0.068	0.351	0.448	0.189
Rural	0.063	0.433	0.43	0.127

Table D.4: *The Cost of the Government for SST policy*

Scene	HC	CH	PH	CH	PH	Cost
1	70	200	500	2,000	5,000	34,204,623,959
2	80	240	600	2,400	6,000	40,924,478,650
3						56,500,758,751
4	70	200	500	2,000	5,000	39,097,948,367
5	80	240	600	2,400	6,000	47,119,500,072

[46]/ Pannarunothai S and Wongkanaratanakul P (1996) Estimation of the cost of basic essential health package for Thailand by using current health expenditure for the low-income and other underprivileged groups. An HSRI research report.

Table D.5: *Copayment raised in relation to Cost*

Scene	Cost	Copay	%
1	34,204,623,959	6,973,766,320	20.39
2	40,924,478,650	7,965,334,443	19.46
3	56,500,758,751	9,428,052,973	16.69
4	39,097,948,367	7,387,784,648	18.90
5	47,119,500,072	8,002,134,804	16.98