



Chapter V

Health Care Financing and Market Failure

5.1 Definition and Goals :

The methods used to mobilize the resources that support basic public health programs, provide access to basic health services, and configure health services delivery systems affect people's health status are called health care financing. They are used to achieve the goals of health care systems including :

- Improving population's health status and promoting social well-being
- Ensuring equity and access to care
- Ensuring microeconomic and macroeconomic efficiency in the use of resources.
- Enhancing clinical effectiveness.
- Improving quality of care and consumer satisfaction
- Assuming the systems's long-run financial sustainability

5.2 Global Overview

In 1994 global spending on health totaled \$ 2,330 billion or about 9 percent of global income, of this high income countries accounted for 2,000 billion – 87 percent of the total health expenditure. The population of these countries accounted for just 16 percent of the global population. The extreme disparity between the amount of resources low-and middle-income countries and high-income countries devote to health care reflects the widely varying capacities of these country groups to provide health services. What are the prospects for narrowing the disparities between rich and poor nations some perspective on this question can be gained by comparing the two group's health service capacities and prospects for Economic Growth-Industrial Countries have Three Times as many inpatients beds per-capita as developing countries (Table 5.1) to close the resource gap, developing countries will have to

make sizable investments in health services increase spending at rates faster than of high income countries.

Policy makers face the perpetual challenge of raising sufficient revenue for the health sector in an equitable and efficient way. So they must have some way to evaluate the performance of their countries health systems against those of other countries or regions at comparable income level. One approach is to divide the performance of health financing mechanisms into three broad categories. The first category is concerned with how efficiently and equitably revenues raised, and what effect they have on the size and distribution of resources available to the health sector. The second category involves evaluating how efficiently and equitably resources are used to provide health services. The third category relates to effects health expenditures have on health outcomes this last measure is tied to intersectoral factors which is difficult because of the lack of reliable data especially for developing countries. As a results developing countries, lack the basic information and tools needed to assess how health system resources are being raised and used without such information it is extremely difficult for policy makers to understand the effect of their policies and determine which decisions are likely to ensure equity in financing and increase returns on the resources devoted to the health sector and more difficult is to evaluate their changes

5.3 Regional Health Expenditure Patterns

OECD countries spend more than 8 percent of their GDP while low income countries spend about 4 percent of their GDP on health. Average per capita health expenditure range from \$ 16 in low-income countries to \$ 1,827 in OECD countries (Table 5.2) per capita incomes and public share of health care costs tend to rise together indicating an expanding government role in health care financing as countries develop economically. In OECD countries the public sector account for, on average, more than 75 percent of total health expending. Developing countries show considerable variation in public share of health expending. This heterogeneity underscores the diversity of approaches to health care financing in developing countries and reflects these countries historical political and economic structure.

5.4 Public and Private Expenditures and Financing.

Data on public health spending are drawn from government budgets compulsory health insurance funds and external loans grants. Social insurance schemes play a limited role in most low income countries, where public health expenditures usually come directly from government budgets. While they play a larger role in middle income countries though the pattern that emerges is diverse.

Most of the data on private health expending are estimated drawn from household expenditure surveys. These data usually are not disaggregated into different forms of payment, such as direct fee services, insurance premiums or other forms of prepayment and cost-sharing payments. Funds can be raised through tax, mandates, private health insurance, direct private out of pocket payments, grant assistance, charitable contributions, and domestic or foreign borrowing. They can be managed by government or quasi government agencies (social security organizations) for profit or non profit private entities. Funds are then used to purchase publicly or privately provided health services.

The basic issues relating to the appropriateness of public or private sources of finance are predicated on governments allocational distributional, stabilization, and economic goals and on policies that are used to correct for market failures and externalities in financing, consumption, and provision of health services.

5.5 Income Elasticities

The global elasticity for health expenditure is estimated at 1.13 - that is countries with higher incomes tend to devote a larger share of those incomes to health expenditures. The income elasticity for the public component of health expenditures is 1.21; for private expending is 1.02. This pattern suggests that public health spending is more responsive to income differences than is private health spending, and is consistent with the fact that high-income countries have larger public shares of total health expenditures.

Income elasticities by income level are shown in Table 4.3. Income elasticities for per-capita health expenditures relative to per capita GDP are highest for high

income countries (1.47), followed by middle-income (1.19) and low-income (1.00) countries (Table 5.4)

5.6 Market Failure in Health Care

The basic reasoning underlying extensive government intervention in health care, is that none of ideal assumptions of perfect markets works in the case of health care. Thus, market failure in the allocation of health care is so complete that extensive government intervention is more likely to result in the achievement of societal objectives. Than are market forces supplemented by minimal government intervention . The implication of this is that there are important, and sometimes distinctive, characteristics of the commodity. health care which render it more susceptible than other commodities to government intervention. These characteristics, and their consequences are :

- Risk and uncertainty associated with contracting illness, which, in an unregulated market, will lead to the development of insurance markets and the consequent problems of diseconomies of small scale, moral hazard and adverse selection
- Externalities
- Asymmetrical distribution of information about health care between providers and consumers, combined with problems of professional licensure.

Although one may recognize each of the above characteristics existing in other commodities, but health care is unique in that posses all of these characteristics. However, it is argued that all of these characteristics occurring in one commodity would render market failure so complete as to result in government intervention being the optional solution for its financing though not necessarily its provision. However government financing of health care can take many different forms. and depending on amount of government intervention, markets in health insurance also may develop.

Table 5.1 : Economic and Health Indicators by Region and Income Group, Circa 1994

Region/Income group	Economic indicators		Health outcomes		Health services	
	GDP (1994 US\$)	Per capita GDP, Growth, 1996-2005 (percent)	Under-five Mortality (percent) ^a	Adult mortality Ages 15-60 (percent) ^a	Physicians Per 1,000 People	Hospital Beds per 1,000 people
East Asia and the Pacific	1,214	6.8	5.3	17.9	0.3	1.63
Europe and Central Asia	1,792	3.7	3.5	20.3	3.4	7.14
Latin America and the Caribbean	3,138	2.2	4.7	14.8	1.0	1.45
Middle East and North Africa	2,699	0.4	7.2	19.4	0.9	1.51
South Asia	440	3.7	10.6	23.5	0.2	0.53
Sub-Saharan Africa	776	0.9	15.7	39.7	0.1	1.35
Low income	396	-	10.4	-	-	0.87
Middle income	2,707	-	5.3	-	-	2.12
Low and middle income	1,774	3.7	8.8	21.4	0.7	1.05
High income	18,611	2.4	0.9	9.7	2.5	6.29

Note: Regional figures are country-weighted averages. Income groups are based on 1994 GDP per capita: low income is \$725 or less, middle income is \$726-8,500, and high income is \$8,501 or more.

^a. Based on current life tables.

Source: Discussion paper 365 Innovation in Health Care Financing 1997

Table 5.2 : Per Capita GDP and Health Expenditures by Region and Income Group, Circa 1994

Region/ Income group	Per capita GDP		Per capita Health expenditure		Health Expenditure As percentage Of GDP	Public health Expenditure As a share of Total health Expenditure (percent)
	PPP	US\$	PPPS	US\$		
East Asia and the Pacific ^a	4,554	1,214	158	38	4.1	52
Europe and Central Asia	3,847	1,792	346	154	7.2	72
Latin American and the Caribbean	5,729	3,138	367	200	6.1	49
Middle East and North Africa	7,181	2,699	353	116	5.2	50
South Asia ^b	1,887	400	65	12	3.7	39
Sub-Saharan Africa	2,070	776	111	38	4.0	54
Low income	1,565	396	71	16	4.3	47
Middle income	5,790	2,707	364	168	5.3	57
High income	20,615	18,611	1,521	1,468	6.9	67
OECD ^c	21,169	22,498	1,777	1,827	8.3	76

Note: Regional figures are country-weighted averages. International dollars (PPPS) are local currencies converted to U.S. dollars through the use of purchasing power parities ("exchange rate" that adjust for cost differences across countries). Income groups are based on 1994 GDP per capita: low income is \$725 or less, middle income is \$726-8,500, and high income is \$8,501 or more.

a Includes China.

b Includes India.

c Excludes Hungary, Mexico, and Turkey.

Source: Discussion paper 365 Innovation in Health Care Financing 1997

**Table 5.3 : Income Elasticities for Total, Public, and Private Health Care Spending,
Circa, 1994**

Spending category	Income Elasticity (η)	Number of Observations	Adjusted R^2
Total health expenditure	1.13	122	0.94
Public	1.21	162	0.91
Private	1.02	126	0.85

Note: Dependent variable is per capita health expenditure (US\$).

Source: Discussion paper 365 Innovation in Health Care Financing 1997

Table 5.4 : Income Elasticities by Income Group, Circa 1994

Income group	Income Elasticity (η)	Number of Observations	Adjusted R^2
Low income	1.00	31	0.34
Middle income	1.19	57	0.82
High income	1.47	34	0.64

Source: Discussion paper 365 Innovation in Health Care Financing 1997

5.7 Health Care in Thailand : Trends and Attainments

Thailand's health system reflects the entrepreneurial market-driven nature of its economy. It has a pluralistic public / private mix in both financing and delivery of health care. While government organizes health care financing for some segment of its population, it adopts largely a *laissez-faire* policy toward private providers and private insurers.

The public health infrastructure, hospitals and health centers, have been well developed but not functioning properly due to limited technical support, poor management and confusing rules. Ambulatory care in large and famous hospitals is very popular and results in an expensive and fragmented system. The Thai medical care system is characterized by over-specialization, negligence of comprehensive and continuity of over-mechanization and also being inefficient and costly.

All access to health care in Thailand is accepted by law, but about 1/5 (Table 5.5) of total population have not been covered by any health insurance or welfare system. They have to pay by themselves. Those who can't afford can get free services or deduction based on social worker direction at public hospitals. However, government subsidy does not match with the real expenditure and undermines the public hospital financial status.

Health insurance and welfare schemes varies widely in the target population, benefits package, fund managers source of funding, payment mechanism and government subsidy.

The exceptional performance of Thai economy in the Three decades prior to the mid-1990s is widely recognized. Between 1965 and 1980 growth averaged 7.3 percent annually, accelerating to 7.8 percent in the prior 1980 to 1995 nearly twice the growth rate of other low-and middle-income developing countries per capita income more than tripled. Poverty declined dramatically in all regions of the country using poverty estimates published by the National Economic and Social Development Board (NESDB) based on a head count index. Poverty declined from one third of the population in 1988 to 23 percent in 1992 and finally and finally to 11 percent in 1996. During this period, the number of people living in poverty was more than halved from 17.2 million to 6.8 million. Public provision of services widened.

Substantial gains in life expectancy and decline in infant mortality rate were achieved. (Table 5.6, 5.7 and 5.8) widespread growth and prosperity, however, masked continued poverty in segments of Thai society, rising inequality of incomes, and large gaps in the Government's social safety net (World Bank, 1999).

Although the decrease in poverty incidence was seen throughout the country, poverty remains acute in some areas and groups. Despite the impressive reductions in absolute poverty, the benefits of growth were not shared equitably. As consistently as poverty fell between 1988 and 1992, income distribution became more skewed. Between 1988 and 1992 income distribution the share of personal incomes of richest 10 percent of the population increased to 28 times that of poorest decile. In 1996 the Gini coefficient, a measure of income inequality was 0.50, well above the regional average for current decade of 0.38.

During the period of consistent growth and poverty reduction, the government took relatively modest steps towards establishing an integrated social protection program served as an ad-hoc Social Safety net. Interventions included small-scale indigent and elderly grant programs; national health insurance schemes for the poor and near poor, national students loan programs for secondary students; targeted school lunch programs for primary school students; and short-term vocational and Technical training programs various publicly funded civil works and rehabilitation projects provided employment in the construction sector, but were not designed as job creation protection.

In the area of labor policy a workman's compensation fund was established with contributions from employers and employees, and is functioning for workers in the formal sector prior to the outbreak of crisis. There was no government sanctioned unemployment insurance program no government sponsored social security scheme for private sector. Private provident funds were available through the social security system for formal sector group players.

Economic growth has trickled down to the health sector and the social sectors more generally Thailand has made considerable health sector gain over the past 20-30 years, although it should be acknowledge that these gains are unevenly distributed.

Industrialization and rapid economic growth have also had less desirable effects upon health. Rapid urbanization, changes in the population structure and

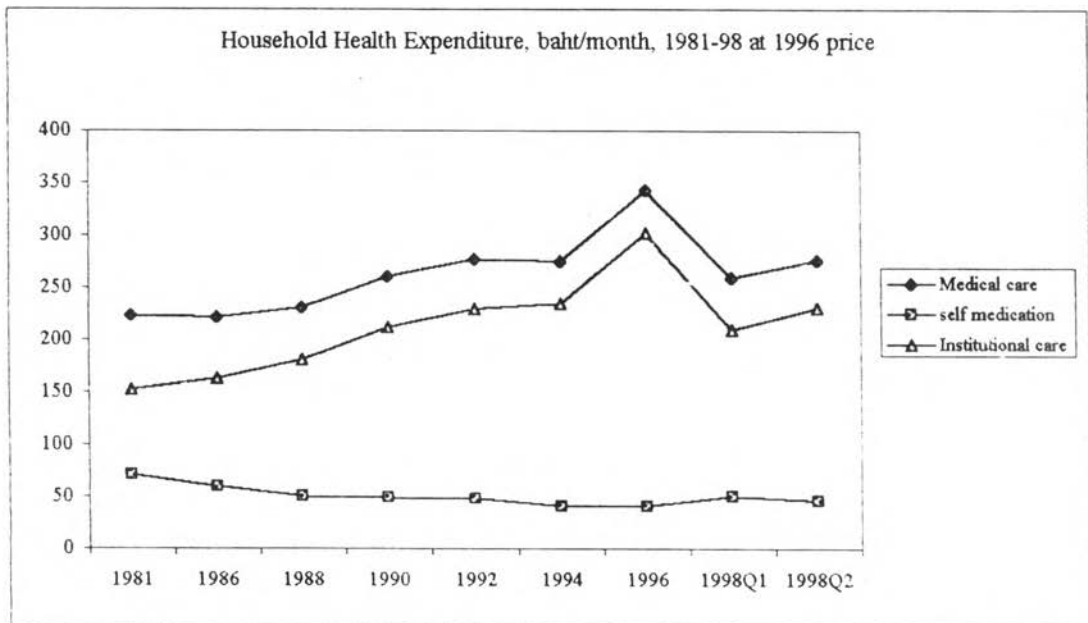
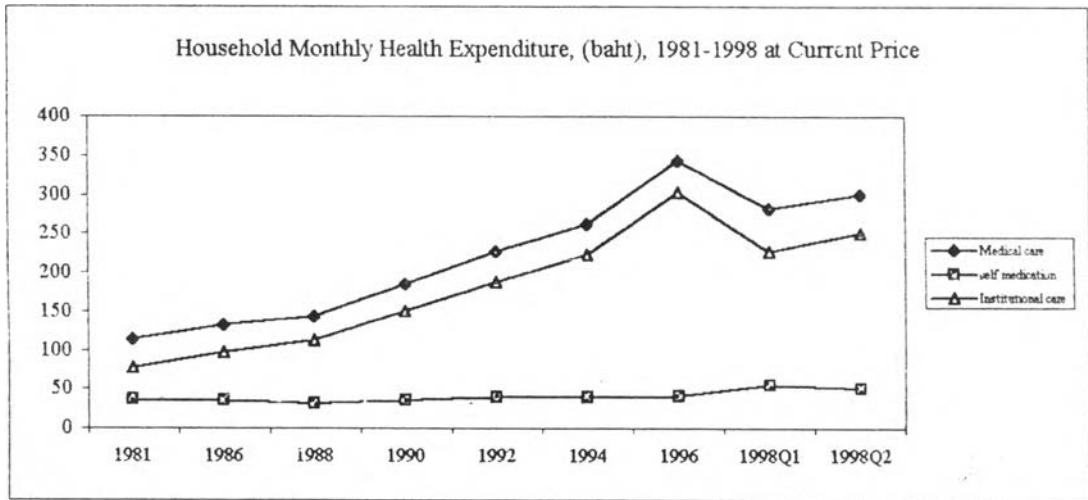
income growth have changed the traditional pattern of disease so that chronic diseases such as cancers and circulatory problems are increasing importance, whilst infections and childhood diseases, also still prevalent in the poorer communities, are of declining significance. Perhaps one of the most striking effects on the health sector has been the growth in numbers of hospital beds during 20 years.

When private hospitals first started registering with ministry of public Health in 1962 There were four private hospitals, all of which were owned by not for profit organizations. The number of private hospitals in Bangkok has since grown 134 and in country to 491. The vast bulk of this growth has been among private for-profit facilities. Further evidence is contained in Figure 4.1, which shows changing patterns of financing in health care. Two patterns emerge clearly. Firstly, during 1980s There was a steady decline in expenditure on self-prescribed drugs. Instead people increasingly sought health care from health professionals. This trend is compatible with both rising real income and increased accessibility to formal health care. However, the little if any of this new buying power has gone to public sector (Figure 5.1). Instead expenditure on private clinics and hospitals has increased at the expense of both self prescribed drugs and care received from other providers. The demand for health care is income elastic. Griffin (Cited in Benet S. Viroj K., 1994) using Asian Data estimated an average elasticity of 1.3 Estimates based on Thai data were as 1.62. Rapid income growth in Thailand therefore led to even faster growth in the demand for health care services. Much of this growth in income was in urban areas. Consequently demand for health care services also escalated rapidly in the cities and towns. The private health care sector stepped in to fill this gap between supply and demand of services.

Data for the whole country, for period 1986 to 1996, support the earlier findings that the Thai population is moving away from self-treatment to other sources of care. For 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 overall, monthly household expenditure from all sources increased by 55

percent to 343 baht in 1996. The pattern of change in health expenditure is different in each regions. In Greater Bangkok monthly household expenditure for private hospitals of clinics in creased by 242 percent in real terms over 11 year period to 364 baht in 1996, 1997 and 1998 while expenditure for public hospitals only increased by 65 percent to 123 baht overall, monthly health expenditure increased by 110 percent to 579 baht in 1996. So the ratio of private public increase during 11 years period for public / private was 3 : 1 (364 baht to 123 baht) the escalated demand lead to rapid growth in health care expenditure may access both through increasing prices and increasing quantities of services. Although information on the over provision of care is not available. There is evidence pointing to excessive accumulation of high-technology equipment. The 1995 health resources survey revealed 42%-60% bed occupancy in the private hospitals.

Figure 5.1 Household Monthly Health Expenditure, (baht) 1981-1998



Sources : National Statistical Office.

Table 5.5 Percentage of Health Insurance Coverage by Scheme, 1991-1998

Health insurance scheme	Coverage, percent					
	1991	1992	1995	1996	1997	1998
1. Medical care for the poor and the Supported groups	16.6	35.6	43.9	45.93	45.47	45.06
- The poor	16.3	20.7	15.5	20.18	19.72	13.45
- The elderly	-	6.2	4.6	5.46	3.83	5.48
- Children aged 0-5	-	-	7.1	14.5	14.0	7.28
- Primary and secondary school children	-	9.0	8.9	14.5	14.0	11.10
- War veterans	0.3	-	0.4	0.23	0.34	0.35
- Community leaders and volunteer	-	-	5.0	3.55	5.3	5.38
- The disabled	-	-	1.8	1.51	1.79	1.52
- Buddhist monks and novices	-	-	0.6	0.5	0.49	0.50
2. Medical services for civil servants And state enterprise employees	10.2	11.3	11.0	13.1	13.09	10.85
- Civil servants and family members	8.7	9.9	9.6	11.7	11.7	9.42
- State enterprise employees and family members	1.5	1.4	1.4	1.4	1.4	1.43
3. Compulsory health insurance	3.2	4.4	7.3	7.61	7.33	8.47
- Social security fund	-	4.4	7.3	7.61	7.33	8.47
- Workers' compensation fund	3.2	-	-	-	-	-
4. Voluntary health insurance	2.9	3.9	9.8	10.4	14.77	13.95
- MoPH health insurance	1.7	2.3	7.8	9.0	14.77	13.95
- Private health insurance	1.2	1.6	2.0	1.4	-	-
Total – people with health insurance	32.9	55.5	72.0	77.04	80.66	78.33
Total – people without health insurance	67.1	44.5	28.0	22.96	19.34	21.67

Source : Health Insurance Office, MOPH 1995, National Statistical Office 1998.

Table 5.6 Weights of Under Five Year-Old Children

Year	Number of Children	Nutritional Status			
		Normal	1°	2°	3°
1990	2,598,124	81.44	17.76	0.80	0.0042
1991	2,857,554	83.69	15.63	0.68	0.0046
1992	3,001,825	84.60	14.69	0.70	0.0054
1993	3,063,865	85.58	13.69	0.72	0.0058
1994	3,036,268	85.63	13.51	0.84	0.0048
1995	2,906,994	88.23	11.05	0.71	0.0031
1996	3,156,700	89.91	9.51	0.57	0.0045
1997	3,233,100	90.97	8.48	0.53	0.0032

Source : National Statistical Office

Table 5.7 Life Expectancy (Years) at Birth of Thai People, 1964-1988

Year	Male	Female
1964-1965	55.9	62.0
1974-1976	58.0	63.8
1985-1986	63.8	68.9
1991	67.7	72.4
1995-1996	69.97	74.99
1997	66.6	71.7
1998	67.7	74.9

Source : National Statistical Office.

Table 5.8 Coverage Rates (Percent) of Immunization Against Major Vaccine-Preventable in Various Target Groups, 1995-1998

Immunization	Coverage rate (percent)		
	1995	1996	1998
In children < 1			
- BCG	98.4	98.0	98.0
- DPT ₃	93.7	96.0	94.0
- Measles	89.8	92.0	85.0
- MMR		.164	.200

Sources : Department of Communicable Disease Control, MOPH

UNICF Information Statistics 1998.

5.8 Health Care Financing in Thailand

5.8.1 National Health Accounts

The percentage of GDP spent by the public and private for health has been estimated by different sources at different points in time. 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 period 1978 to 1992. His figures for 1984 found that Thailand spent 5.1 percent of its GDP for health but Confirmed the public to private sector ratio was 32:68. A national health accounting exercise was carried out by Thai academics with 1994 data. They estimated that only 3.6 percent GDP was spent for health, and that the public to private ratio was 49:51. The NESDB also carried out a national health account 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 (Dayl S. Donaldson et al. 1998)

5.8.2 Trends in the MOPH Budget

During the 7th plan (1992-1996) the overall budget of the MOPH increased by 87 percent in real terms with salaries increasing 62 percent, other recurrent expenditure by 59 percent, and capital expenditure by 165 percent. In 1992, Comprised 44 percent of total expenditure, other recurrent expenditure remain at 33 percent, and capital increased to 2.4 percent of total MOPH expenditure.

During the “bubble economy” this period was worked by a rapid expansion of capital investment in 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, salaries are expected to increase by 25 percent, other recurrent expenditures by 31 percent in real terms.

In financial year 1994 Administration expenditures comprised 6 percent of consumption health expenditure which is admirable while 36 percent was expensed by public institutes and 32 percent by private institution and 10 percent was expensed for public health programs shows trends in MOPH expenditure overtime trends can also be analyzed in the MOPH’s budgetary allocations to different services and programs distribution of the health budget to different services and programs has remained constant overtime.

As a whole changes in indicators of health system performance are continues rather than discrete which during or after the economic crisis are analyzed respectively. As far as data show sustainability of all schemes is impacted proportionally.

1. Sustainability of Public Assistance Schemes was impacted less schemes because government allocated more budget to it but as a whole comparing with increased number of insured, it was not enough, efficiency of this schemes decreased during the crisis.
2. Government budget of CSMBSS scheme was cut, and its changes of expenses which was 22% in 1996 dropped to 14% in 1997 and 6% in 1998. Private hospitals burdened the most decrease by 23% in 1998. Supply and demand side intervention increased partially the efficiency of the scheme but yet it is the most

inefficient scheme of health sector. Lack of management is evident in this scheme.

3. Health card project which is under pressure of insufficient governmental budget and also some policy making and management problem as target setting and moral hazard and adverse selection needs to be revised.
4. Sustainability of social security and workmen's compensation schemes suffered from unemployment, while were sustainable in their present framework and also are operating more efficient than the other schemes. They have also some major difficulties both due to limitation of coverage, inefficient allocating, because according to the Surveys of Health Research Institute (Dayl S. Donaldson et al, 1998) more than 95% of inpatient services of these schemes is provided by private sector which is up to 8 times higher than public sector services. There is not enough data about private health insurance, the only reliable evidence is the house-hold health expenditure which is the most significant source of private sector was dropped by 36 percent in real term between 1996 and first quarter of 1998 (Figure 5.1). Which means private scheme was impacted severely.
5. Nutrition status and Life Expectancy promoted (Table 5.6 and 5.7) but Immunization coverage worsened during the crisis. (Table 5.8)
6. Budget of Capital investment cut dramatically (Figure 2.3) which may result in drop of health status next years.
7. At least more than 20% of population have no insurance coverage, while Economic Crisis has not finished yet and they are not able to access health services.

While the purchasing power of the population decreased and government could not do its function properly in keeping them safe it can be concluded that health situation may worsened due to the Economics Crisis and the story is repeated in Thailand, while its victims are vulnerable once again!