

Chapter III

Research Methodology



3.1 Conceptual Framework

Key variable of Thailand economic are numerated as sharp decline in economic growth, high current account deficits sharp decline in exports huge external debt of private sector, high inflation rate, violate exchange rate, high unemployment, budget deficit and lots of business failure (table 2.1), which deterioration of them resulted the economic crisis of the country. Health sector is affected by a combination of some of the key variables, because due to decrease of general tax revenue government cut the budget of Public Assistance (PA) and Civil Servant Medical Services Scheme (CSMBS), increasing unemployment diminished imbursements of wage receivers as well as government share of SSS fund, high inflation rate and increasing Value Added Tax (VAT) diminished disposable income of population devaluation of Baht resulted increasing prices of imported drugs and equipment and shortage of the accessibility and quality of care in public sector decreased due to closing some private hospitals and increasing demand of vulnerables and middle strata, which lost their jobs, morbidity increased and as a whole health status deteriorated while financial sustainability of some of schemes as well as their technical, economical and allocative efficiency changed to cope with the crisis.

3.2 Research Methodology

Research methodology is macro, descriptive and cross sectional to analyze health impacts of the economic crisis by monitoring health sector indicators before and during the crisis as well as using financial sustainability and efficiency indicators and criteria as monitoring tool to follow up impact of economic crisis on PA, CSMBS, SSS, HCP, private insurance and noninsureds schemes before and during the crisis.

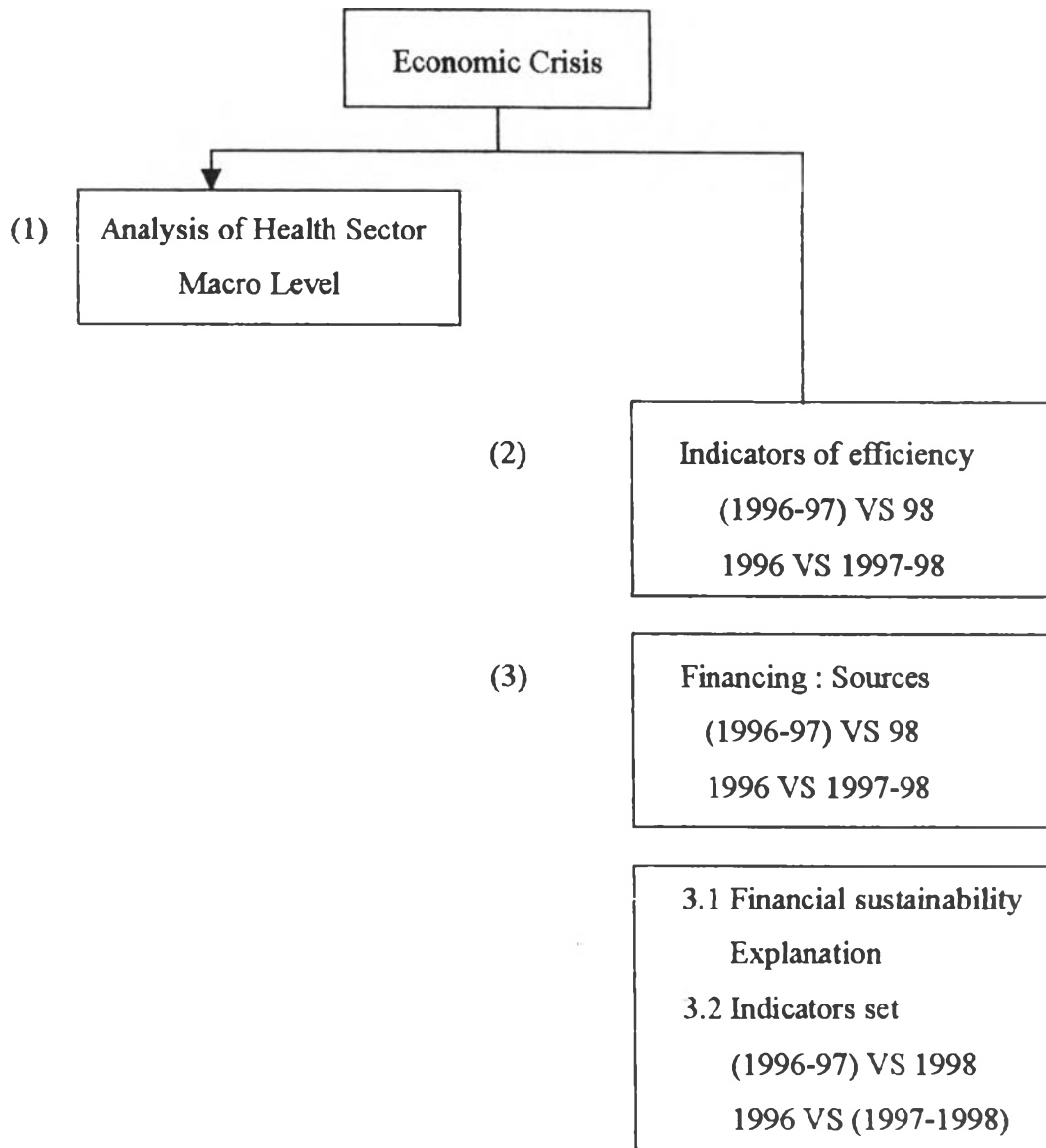


Figure 3.1 Analysis of Health Insurance Schemes

Note : Changes in pattern of members, wage at each scheme (SSS, CSMBS, HCPI)

Total health expenditure of each scheme

Indicators of financial sustainability and efficiency, Data conclusion

3.3 Research Toll

Research tools for evaluation of health sector performance are MMR, IMR, Life Expectancy, number of physician and hospital beds per 1,000 population, percent of health budget to GDP and total governmental budget which are macro indicators will be used cross sectional, before and during the crisis.

Performance of health sector may be analyzed by some definite indicators as efficiency and sustainability of different schemes. Analyzing different schemes shows their reliability as well as their contribution to diminish deficits of health market, because information asymmetries, externalities, public goods and economies of scale all are present in health care: At the sector level, this analysis may open way to health financing policies in which different resources of finance, payment mechanisms, purchasers and providers coexist and should be coordinated in an appropriate public, private mix of providing health services under-changes of economic key factors specially Economic crisis.

3.3.1 Indicators of technical efficiency

A health sector is technical efficiency when it produces the maximum physical output of (effective) services for the same level of inflows

- Average length of inpatient in private/public hospitals
- Hospital bed occupancy rate public/private
- Days of hospitalization public/private
- Number of outpatient inpatients public/private
- Number of public-private hospitals
- Percent of inpatients and out patient of private sector
- Target population coverage
- Percent of immunization coverage.

Are proposed for evaluating technical efficiency because they are outputs of definite inputs of health sector

3.3.2 Economic efficiency

A health sector is economically efficient if it uses input combinations that permit it to produce a given level of (effective) services at least cost.

- personnel expenditure as a percent of total recurrent health expenditure.
- Expenditure on drugs and supplies as a percent of total recurrent health expenditure are often applied to government health systems to monitor the degree of economic efficiency. Under conditions of budgetary short falls, ministries of health typically protect jobs and

allow other inputs (e.g drugs and supplies) to diminish relatively when this happens, inputs no-longer combined in such a way to minimize costs

- Number of nurses per hospital bed
- Number of doctors per hospital bed are proposed as indicators of economic efficiency and integrated by Comparing them to standard ranges obtained from international data
- Percent of outpatient visits obtained from the private sector
- Private hospital beds as percent of total
- Unit cost of Hospital bed public/private
- Total amount paid to hospitals
- The index of price of drugs (FDA)

Are measures of relative importance of public/private sector in the provision of both outpatient and inpatient health care.

3.3.3 Allocative efficiency

A health sector is allocatively efficient when it allocates resources to activities in which they have the highest value.

- Percent of government recurrent health budget spent on public health services is an indicator of allocative efficiency which has both public health and economic rational, because of its either “public good” nature and involve “externalities” it is assumed that allocation of financial resources to lower levels increases allocative efficiency.

3.3.4 Financial sustainability

The level of health system financial sustainability refers to capacity of system to continue its normal activities successfully in the Future relying its ability to mobilize resources. Government financing, has shown itself to be a vulnerable source of financing, because government financing is difficult to sustain during economic downturns and they are subject to political influences and also tax capacity of developing countries is weak.

Alternative Sources of financing may be more sustainable, e.g. employment taxes (social insurance), private health insurance employer financing and user’s fee.

Although these indicators are proposed as measures of sustainability, they also have an efficiency dimension.

- Government health expenditure as percent of total government budget.
- Government health expenditure as percent of GDP

But government financing is a particularly vulnerable part of health system financing so incomes of other schemes should be added to diversify it as complementary resources

- percent of total health expenditure financed by different schemes as : SSS, Sivil Servant funds, health card, private insurance and user's fee.
- Percent of SSS, Sivil Servant fund, health card, private insurance and user's fee per GDP.

3.3.5 Criteria of evaluation of indicators

The evaluation literature suggests that indicators should be selected according to the Following Criteria.

- Validity
- Feasibility
- Precession
- Reliability
- Timeliness
- Comparability
- Additability
- Interpretability
- Cost

In addition to the above consideration it is desirable that indicator be expressed in relative rather than absolute terms to facilitate Comparability and the total number of indicators be as small as possible to reflect adequately the various dimensions of performance. Indicators may be scored against above mentioned criteria.

An appropriate combination of criteria and indicators and coping mechanism as payment mechanisms are necessary for making policies, but due to

time and data limitation in this research indicators will be assessed only against interpretability, validity and reliability.

Since enough health experts were not attainable to score the schemes against criterion, only PA and HCP schemes were scored to exercise against monitoring tool and were weighted against criterion mentioned in the handbook of indicators before and during the Economic Crisis and other schemes were scored against limited criterion. SSS and WCS are analyzed according to “methods of evaluating the effects of health financing reforms” of Barbara Mcpake. (1994)

3.4 Limitations

The most important constraints was time limitation, also data were not kept in a definite center and should be collected from different departments of MOPH and health experts were not easily attainable to score the indicators.

3.5 Data Collection

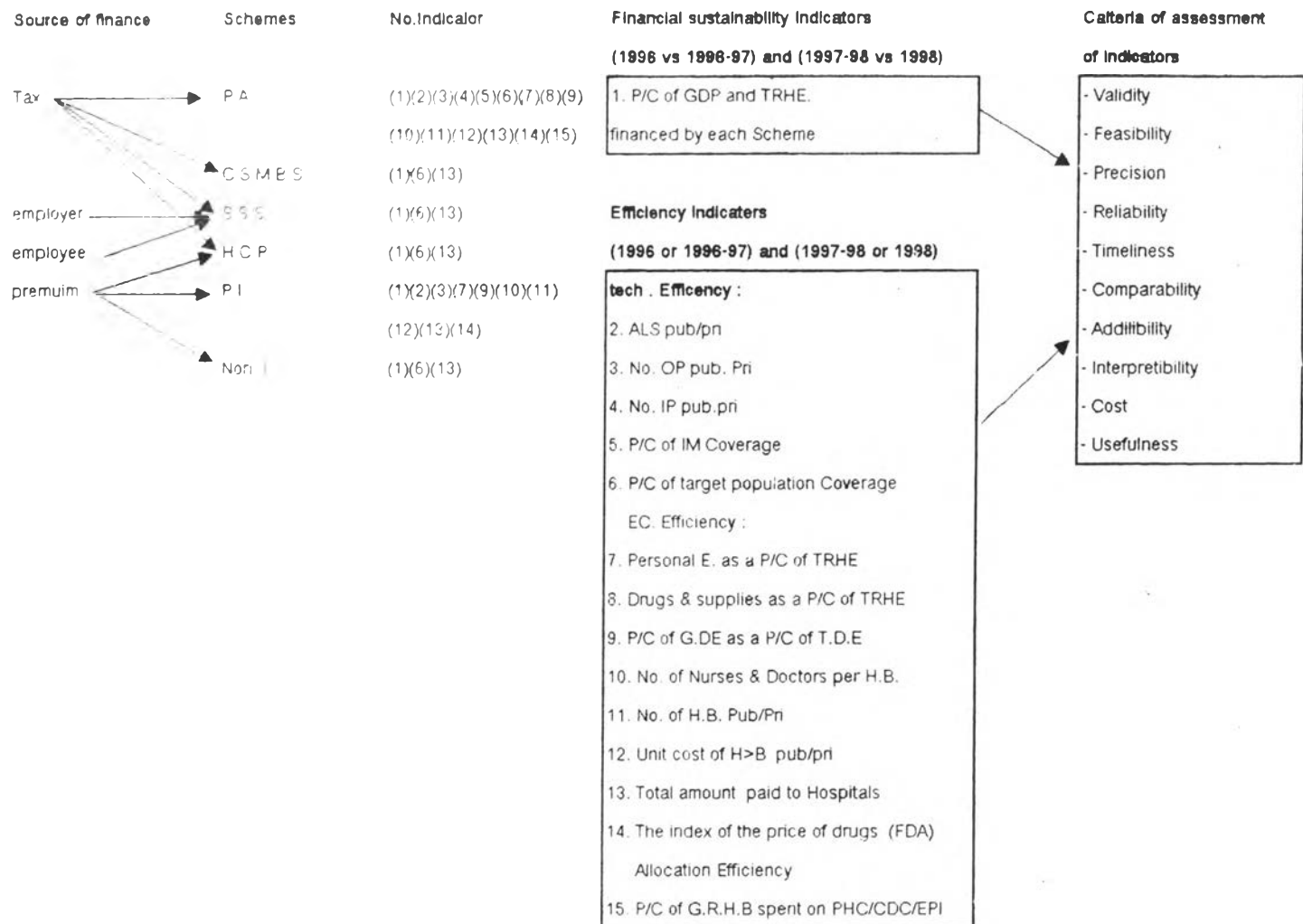
Primary data were collected through interviews of experts in MOPH and secondary data were collected from: WHO document center in Thailand, Health System Research Institute of MOPH, Health System Reform Center of MOPH, Insurance Office of MOPH, Budget Bureau Office of MOPH, Social Security Organization, library of Medical Faculty of Chulalongkorn University, library of Faculty of Economics of Chulalongkorn University, reports and publications of World Bank, book and articles about economic crisis of South-East Asia.

Table 3.1 Monitoring Tool to follow up impact of Economic Crisis on Health Sector

Schemes	Indicators	Financial Sustainability			Technical Efficiency							Economic Efficiency								Allocation Efficiency			Total Scores						
		F of GDP	P/D of T.R.H.E	P/C of Recovered	ALS Pub	ALS Pn	Op. Pub	Op. Pn	IP. Pub	IP. Pn	P/C of IM	P/C Coverage	P/C of PE T.R.H.E	D&S P/C T.H.R.E	GDP P/C T.H.R.E	NR Pr Bed	Dr per bed	Red Pn	Bed Pub	Bed Cost Pub	Bed Cost Pn	Paid to Hos	Ind Pr D of T.R.H.E	% PHC of T.R.H.E	% CDC of T.R.H.E	% EPI of T.R.H.E	Sustainability	Efficiency	
1996	PA																												
	CSMBS																												
	SSS																												
	WCF																												
	HCF																												
	Pi NON I																												
1997	PA																												
	CSMBS																												
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1998	PA																												
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	WCF																												
	HCF																												
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1. Scores will be 1-5 for each indicator (3 = no change 1 and 2 = decreases, 4 and 5 = increase)
 2. Then they will be weighted with criteria (validity = 2, reliability = 5 and interpretability = 5)
 3. Total scores of each scheme will be compared for 1996-1997 and 1998
 4. Total weighted scores will be compared between different schemes cope with the economic crisis which guide policy makers and managers
 5. WCF will be assessed against 1) (6) (13)
- Note: Scores and their weight are usually determined by a group of experts

Figure 3.2 Monitoring Tool to follow up impact of Economic Crisis on Health Sector



* where

E = Expenditure

ALS = Average length of stay

tech = Technical

pub = public

pn = pnvate

PI = pnvate insurance

EC = Economic.

OP = out patient

IN = Inpatient

TRHE = Total Recurrent Healthexpenditure

CDE = Genenc Drug Expenditure

TDE = Total Drug Expenditure

H.B = Hospital bed

NON.I = Non Insured