

**Mobilization of Domestic Resources for Essential Drugs  
in Developing Countries: Case Study from Thailand**  
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**Abstract:-**

Thailand is a developing country which is moving very fast into globalisation and international trade. In 1998 its value of exports amounted to 54 per cent of its GDP. This highly export oriented economy makes Thailand very vulnerable to foreign pressures and external economic dynamics. Pressures from the USTR since 1986 forced the country to open its Tobacco market and accept product patent in 1992. Pipeline pharmaceutical products also enjoyed market exclusivity under a technical Safety Monitoring Program (SMP). This situation enhances the increasing drug price and reducing the accessibility to essential drugs. The economic boom since early 90s and the pipeline products protection increase drug expenditure greatly as well as increase proportion of imported products. Many sources of finance for essential drugs have been successfully employed in Thailand. They are user fees, tax revenue, and community financing. Internal management to increase availability of essential drugs, e.g., reallocation of budget, measures to achieve lower drug price and more rational use of drugs are also employed. Economic crisis in 1997, although brought with it the financial stress on public health budget, but also allowed for major management reform including drug management. Several strategies include reduction of hospital drug items, collective procurement, health care financing reform, and reformulation of public budget were developed and implemented under a comprehensive “good health at low cost” policy. More managerial reforms are needed to cope with the more intensive and longterm monopolistic effect of the product patent. It is suggested that a global public drug fund from certain percentage of global drug sales should be established to support rational use of drugs and R&D on public essential drugs.

**Key words :** drug financing, essential drugs, product patent, economic crisis, TRIPS.

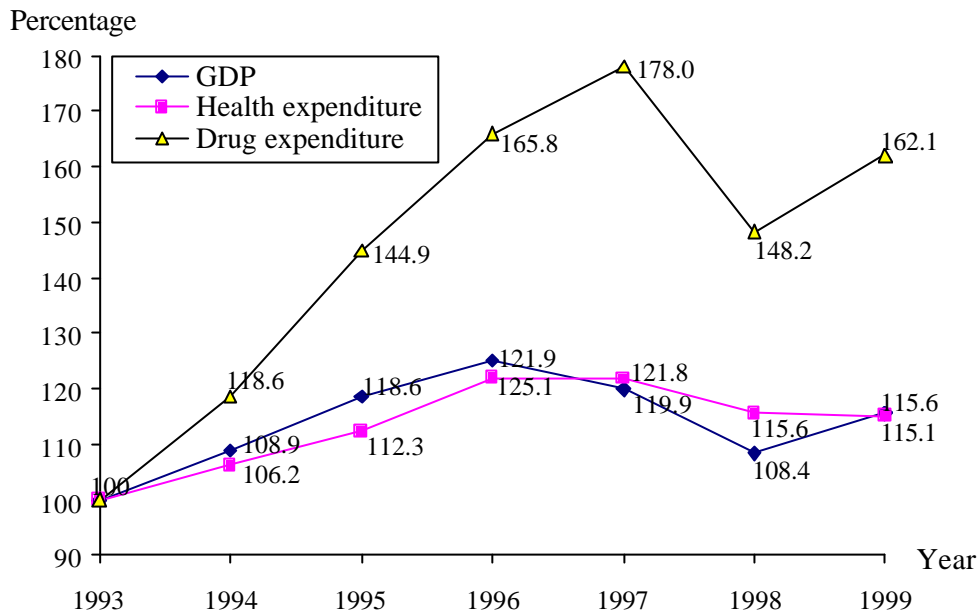
**1. Introduction**

Thailand is a lower middle income country in Southeast Asia with a population of 62.9 million in 2001. It consists of 75 provinces, 795 districts, 81 subdistricts, 7,255 Tambons (communes), and 68,881 villages. The health care delivery system is pluralistic and composed of both public and private facilities (Table 1). The public facilities have approximately 60%, 75%, and 80% share of hospitals, beds, and doctors, respectively <sup>(1)</sup>. Approximately 80% of all public health resources belonged to the Ministry of Public Health (MoPH) with its extensive network of provincial general hospitals, district hospitals, and commune health centres. In 2000, there were 92 general hospitals, 24 district hospitals and 9,704 commune health centres <sup>(1)</sup>. Administratively, all public hospitals and health centres, under the MoPH, in each province report to the Provincial Chief Medical Officer (PCMO). The health status of the Thais improved greatly in the past three decades (Figure 1, 2). However, the health and drug expenditures are increasing at very fast pace, particularly in the last decade (Figure 2, 3) <sup>(1)</sup>.

**Table 1** Health care infrastructures : Pleuralistic

	<b>Bangkok</b>	<b>Provinces</b>	<b>Districts</b>	<b>Tambons</b>	<b>Village</b>
Medical schools	6	5	-	-	-
Specialized Hospitals	24	22	-	-	-
General Hospitals					
Public	29	92	724	-	-
Private	131	342	-	-	-
Private clinics	3,143	9,063	-	-	-
Health centres	85				

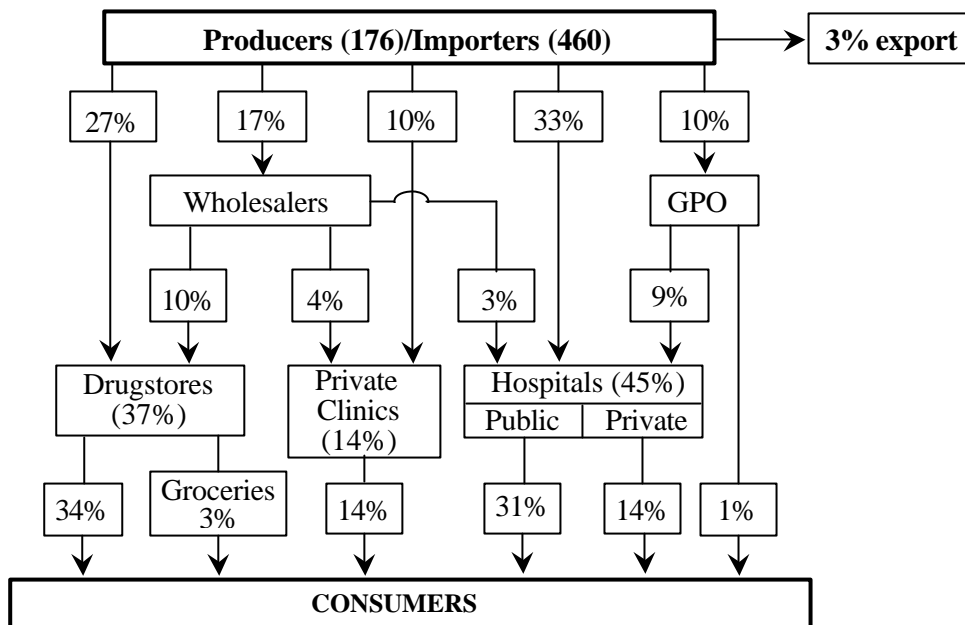
**Figure 2** Growth of Real-Term Expenditures on Drugs and Health and Gross Domestic Product, 1993-1999 (1993=100).



Source: Thailand Health Profile 1999-2000 <sup>(1)</sup>.

Note: values of the three expenditure were arbitrarily set at 100 in 1993 to show their relative pace of increase

**Figure 3** 1998 Drug consumptions/distribution



GPO = Government Pharmaceutical Organization

Source: Na Songkhla M, Wibulpolprasert S, Prakongsai P, 1999.

**Figure 4** Flow of health expense

Sources

Management  
Mechanism

Fund Recipient

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

**Source:** Wibulpolprasert S, et. al., 2000.

Health insurance coverage among the Thais is increasing from 32.9 per cent in 1991 to 80.3 per cent in 1998 (Table 2). The expense, service utilization and payment mechanisms of each insurance scheme are presented in Table 2.

However, self medication through private pharmacies is still a major choice of treatment (Figure 5). Regarding health facilities, the Thais use both public and private facilities in accordance with their income and health insurance (Figure 6)<sup>(4)</sup>.

**Table 2** Percentage of Health Insurance Coverage by Scheme, 1991-2000.

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

**Source:**

2. For 1992, Viroj Tangcharoensathien and Annuwat Supachutikul, 1993.
3. For 1995, 1997 and 1998, Health Insurance Office, MoPH.
4. For 2000, data for September 2000, coverage 81.58%.

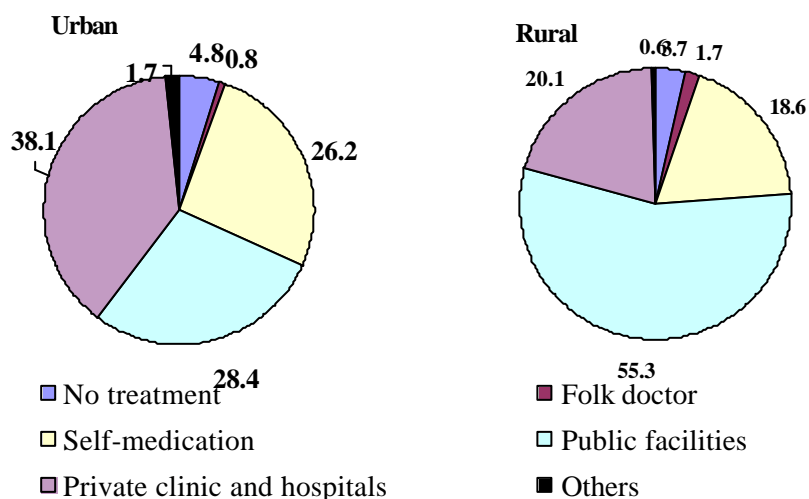
**Table 3** Health Insurance Coverage in Thailand, 1998.

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

- NB. (1) Excluding Workmen's Compensation Fund and motor vehicle accident insurance.  
(2) Cross-subsidization added.  
(3) 1.5% of payroll each from employers, employees, and government.  
(4) Rate according to past history of claims.  
ED = Essential Drugs  
1 US\$ = 40 Baht

Source: Modified from Wibulpolprasert S, et al., 1998<sup>(4)</sup>.

**Figure 5** Health seeking behavior by percentage, 1999.



Source: National Statistical Office, 2000<sup>(5)</sup>.  
**Figure 6** Service utilization by Thais.

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**LOW INCOME**

**MEDIUM**

**HIGH**

The prices of drugs from GPO are fixed and quality control are carried out by the GPO itself. On the other hand, prices of drugs from private companies depends on direct bargaining without a good quality control system from the buyer's side.

Thus drugs are purchased, based on different hospital drug lists, at varying prices and quality in different hospitals. Bigger provincial hospitals usually have more transparency, more bargaining power and more access to better quality drugs. Under this system, different drugs are thus used by different health facilities in the same provinces. A system of **medium price**<sup>(6)</sup>, developed and announced by the MoPH, control the upper limit of the drug price in the public sector.

## 2. Mobilization of domestic resources for health services

There are many sources of finance for health services and essential drugs:-

### 2.1 User fees

Services in public facilities are not free of charge. Unless the patients are covered by some kind of insurance, they have to pay a subsidized level of user fees, according to their ability to pay. However, if they do not have insurance and have no (or not enough) money, they can also receive free medical care from public facilities. User fee system was started in Thailand for more than 60 years, since the early days of modern health care systems development. The money collected are retained by the hospitals and are used to maintain the facilities and purchasing drugs as well as medical supplies, under certain rules agreed upon between the MoPH and Ministry of Finance (MoF). The public hospitals thus receive financial support through government budget (tax revenues), insurance premiums, and user fees. Each hospital is authorized to use these funds to purchase drugs. On the average **about half** of the public hospital drug expense come from user fees. According to government regulations, public hospitals have to purchase 60%-80% of their drugs budget based on items in the essential drug list<sup>(7)</sup>. However, in real practice, only small hospitals and health centres comply to this rule. Bigger hospitals, cited the problems of the outdated National Essential Drug List (NEDL), spend only 30%-40% of their drug budget on ED. Most user fees come from out-of-pocket payment. With increasing health insurance coverage, the proportion of revenue from user fees as percentage of hospital operating budget declines.

At the moment, user fees contributes to around 40-60 percent of public hospital operating expense. About 25 per cent of this revenue was spent on drugs.

The main sources of user fees are:

- (1) **Civil Servant Medical Benefit Scheme** (CSMBS) (fee-for-service) contribute around 30-50 percent.
- (2) **Social Security** (capitation) contributes around 10-20 per cent.
- (3) **Health card** (capitation) contributes around 10-20 per cent
- (4) **Out of pocket** (fee-for-services) contribute around 30-50 percent

With the “30 Baht for all diseases” policy of the new government, and the reform of CSMBS it is expected that the revenue from user fees will further decline. However, this universal coverage of health insurance uses a “capitation” payment scheme. This will inevitably push the providers to use more locally produce generic essential drugs.

### 2.2 Tax revenue (Government budget)

Tax revenues now contribute more than 50 per cent of the operating budget and most of the capital cost.

Previously tax revenue came in the form of global budget, allocated according to the size of facilities. New mechanisms are being created to allocate the public budget using capitation as well as case management system. The budget for social welfare health services and the new “30 Baht for all disease” scheme are all paid by capitation and case management method.

### 2.3 Community financing

There are several schemes in the past, e.g., village drug funds, village nutrition fund, village sanitation fund, impregnated bed nets fund, and tooth brush and paste fund. These funds are partially subsidized from the MoPH’s budget. They contributed to the improvement of people participation during the PHC era (1980-1992). However, the funds are usually very small. Nowadays, these funds almost disappear.

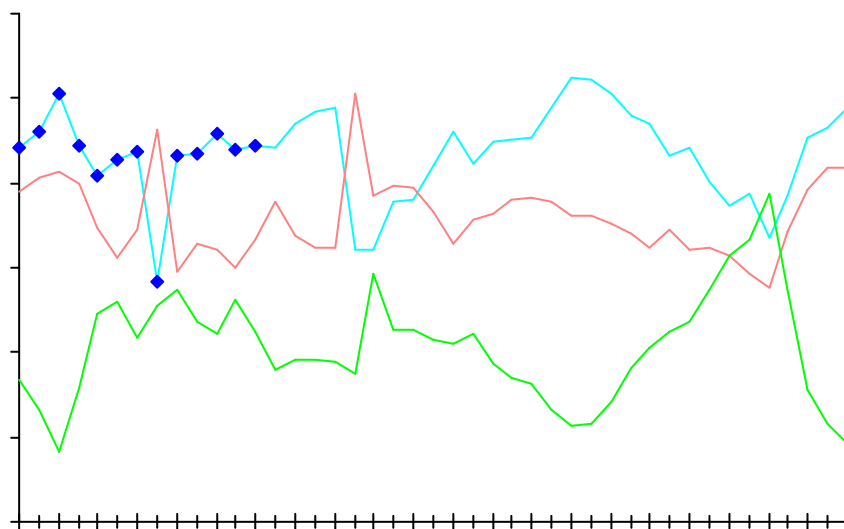
### 3. Internal management to increase the availability of ED.

Several mechanisms were established to increase the drug budget, lower drug price, particularly during the economic crisis, i.e.,

#### 3.1 Reallocation of budget

With the reduction of capital investment, which used to be 40 per cent in 1998, the operating budget of the MoPH including drugs are well maintained (Figure 8, 9).

**Figure 8** Percentage of MoPH budget by major category of expenditure, 1959-2001





### **3.2 The use of EDL**

Developed since 1980 it was used extensively in the public health facilities. The initial strategy was through extensive education. Since mid 1980s, it was mandatory that the public budget have to be spent mainly on EDL.

The social security scheme started since 1990 also mandated the use of ED.

The reform of CSMBS in 1998 also mandated the use of ED.

### **3.3 Promotion of RUD**

Apart from the EDL, extensive drug education, and development of standard treatment guideline, financial measures are used to achieve more rational use of drugs.

The capitation payment in several insurance mechanisms, i.e., the social security, the

**Source:** Food and Drug Organization, MoPH.

### **3.6 Improve quality of generics**

This is achieved by the collective provincial procurement system as well as increase coverage of GMP factories. The coverage of GMP drug factories increase from 30.4% in 1989 to 73.8% in 1998 (Figure 11). This achievements were accomplished through technical (education and training), public relation, public education, and economic measures. There is no legal binding for GMP. An amendment to the current Drug Act to make GMP a compulsory requirement for all drug factories is being considered in the Parliament.

**Figure 11** Percent of GMP-drug factories 1989-2000.

**Source:** Food and Drug Administration, MoPH.

### **3.7 Health Care Financing Reform**

There were several progresses in the health care financing system. The movements were toward more collective tax base system and from fee-for-services to capitation and global

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This was proposed by many developing countries to the WTO ministerial meeting which is going to take place from 30 November-4 December 1999 in Seattle, USA. The Thai government strongly supports this proposal. However, the guidelines for inclusion of drugs in the WHO EDL need to be modified to include not only cheap drugs.

### **1.3 Support enforcement of compulsory licensing**

For expensive patented new essential drugs compulsory licensing should be encouraged

pharmacies also dispense and prescribe should be reformed. This current systems give financial incentive to prescribe and dispense more drugs. Separate payments on drugs by all third party payers should be a tool to separate these two functions.

**6. Social empowerment.** The problem of availability of ED as affected by globalization is an example of social inequity. Social inequity and social unrest occur more in the

8. Rural Hospital Division, MoPH. **Progress Report on the Drug Management under the Good Health at Low Cost Policy Package.** Report to the Permanent Secretary Meeting on 29 November 1999. (mimeograph in Thai).