Financing health promotion: A case study on Thailand

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Abstract

Objectives This case study aimed to review the burden of diseases resulted from chronic non-communicable diseases[1] and its trend between 1999 and 2004, financing health care and financing health promotion and disease prevention, the experiences of innovative financing health promotion and policy makers views on innovative financing health promotion.

Methods The study applied several research methods including literature review, interviews of key informants, and primary survey through a self administered mail questionnaire to key stakeholders in and outside the Ministry of Public Health.

Results In view of a consistent and increasing trend of burden of diseases resulted from chronic NCD, the economic and health impact of NCD on Thai people is far-reaching. Financial resources available for health promotion were far too low compared to those for curative services, most of this funding went to personal clinical preventive and health promotion services and little for public interventions. The resources mobilized by the Thai Health Promotion Foundation (THPF) through 2% levy on tobacco and alcohol consumption, were far too small, though THPF played a significant catalytic role in mobilizing public awareness toward major killers such as tobacco, alcohol and road traffic injuries, to serve as a strong leverage to halt and reverse the trend of chronic NCD. Two major stakeholders, Ministry of Finance responsible for Civil Servant Medical Benefit Scheme (CSMBS) and the Social Security Office responsible for Social Health Insurance had a tunnel view, and yet to be convinced to invest more in health promotion for their beneficiaries.

Recommendations Three policy messages were proposed, (1) Increase level of financing health promotion and primary, secondary prevention of disease through significant Increase in MOPH annual budget on health promotion and amendment of CSMBS regulation and Social Security Act to incorporate health promotion and disease prevention as their mandates; (2) Increase value for money of conventional clinical prevention and health promotion services through the application of a recent publication on "Disease Control Priority for Developing Countries – 2nd edition" authored by Jamaison et al (2006), and improve program effectiveness based on evidence; (3) Sustain and accelerate the work of THPF through increase levies from 2% to 5% of tobacco and alcohol consumption and diversify THPF portfolio to cover cost effective interventions. Portfolio and social mobilization by THPF has to be guided by sound evidence.

[1] Chronic non-communicable diseases are defined as diseases or conditions that occur in, or are known to affect, individuals over an extensive period of time and for which there are no known causative agents that are transmitted from one affected individual to another, for example, cardiovascular diseases, type 2 diabetes, chronic respiratory diseases and certain cancers. Commonly known risk factors for these include lack of exercise, improper diet and smoking (Daar et al 2007)

Abbreviations

BMI	Body Mass Indexes
BOD	Burden of disease
CI	Concentration Index
COPD	Chronic obstructive pulmonary disease
CSMBS	Civil Servant Medical Benefit Scheme
DALY	Disability adjusted life years
GGR	General government revenue
HP	Health Promotion
LIC	Low Income Card
MOF	Ministry of Finance
MOPH	Ministry of Public Health
NCD	Non-communicable diseases
NGO	Non-governmental organization
NHA	National Health Accounts
NHSO	National Health Security Office of Thailand
NTCCB	National Tobacco Consumption Control Board
OOP	Out-of-pocket payments
OTCC	Office of Tobacco Consumption Control
RDS	Rural Doctor Society
SES	Socio-economic household survey
SHI	Social Health Insurance
SSO	Social Security Office of Thailand
THPF	Thai Health Promotion Foundation
UC	Universal coverage of health care
VHC	Voluntary Health Card
WHO	World Health Organization
WHO-SEAR	World Health Organization, Regional Office of South-East Asia

1. Introduction

During the past decade, the disease burden of chronic non-communicable diseases (NCD) has been increasingly a major concern by policy makers and health policy analysts in both developed and developing countries (Marquez and Suhrcke 2005; World Health Organization 2005; Suhrcke, Nugent et al. 2006).

Either rich or poor countries, the diseases burden of NCD, notably cardiovascular diseases, stroke, cancer, diabetes, obesity, and chronic respiratory diseases has a major impact on the economic of the country. The World Health Organization (WHO) estimated that NCD accounted for 35 million deaths or around 60% of the total 58 million deaths in 2005 (World Health Organization 2005). The deaths caused by NCD were double of number of deaths from all infectious diseases (including HIV/AIDS, tuberculosis and malaria), maternal and peri-natal conditions, and nutritional deficiencies.

It is also stressed that 80% of the deaths due to NCD took place in low- and middle-income countries. Hence, the quality of life of the affected individuals, particularly the poor in low- and middle-income countries, and their economies are greatly affected by premature deaths and disabilities caused by NCD. In South-East Asia Region, it is projected that around 89 million of people in this region will die from a NCD over the next 10 years (World Health Organization Regional Office for South-East Asia 2006). In India, premature deaths caused by heart disease, stroke and diabetes, can lead to approximately 220 billion USD loss from the national income over the next 10 years (World Health Organization 2007).

In Thailand, two studies on burden of disease (BOD) in 1999 and 2004 consistently confirmed that the overall pattern of morbidity in terms of DALY loss during the past decade was dominated by NCD (The Thai Working Group on Burden of Disease and Injuries 2002; IHPP 2007). Chronic illnesses from NCD were account for 5.6 and 6.5 million DALY loss or approximately two-third of total DALY loss in 1999 and 2004, respectively. In addition, NCD was the major cause of death among Thai men and women aged more than 45 years, compared to other age groups.

Despite the magnitude of disease burden caused by NCD, evidence from the Thai National Health Accounts (NHA) indicates that government health resources allocated to health promotion and disease prevention have been consistently low, compared to public resources spent for curative services and other personal health care (International Health Policy Program 2005; Tisayatikom, Patcharanarumol et al. 2007).

Such low level of public spending on health promotion, and especially small allocation of financial resources to public health programs aiming at primary prevention of these chronic NCD, it cannot

reverse the trend of BOD attributed from these chronic NCD. There is a need of strong policy shift towards higher investment in health promotion, especially address the risk factor and changes of life style, where clinical base health promotion prevention cannot adequately cope with these challenges.

Despite limited resources for tackling NCD problems, civic groups and NGOs in Thailand have played a vital role in stimulating and motivating public campaigns and societal movements to address the risk factors of NCD, notably tobacco and alcohol. For example, the Anti-Smoking Foundation and Rural Doctor Society (RDS) were two leading organizations involving in anti-smoking campaign and *Running against Tobacco* in 1987 (Chantornvong and McCargo 2001; Siwaraksa 2005). The National Tobacco Consumption Control Board (NTCCB), established in 1989, was the focal point to collect information about tobacco, and formulating legal framework to curb down tobacco consumption in Thailand in the early 1990s.

In addition, the Office of Tobacco Consumption Control (OTCC) served as the Secretariat of NTCCB and involved in the analysis of tobacco consumption, strategic planning, and disseminating knowledge and public understanding for reducing tobacco consumption in the country. As a result, the movement of civic groups and NGOs accompanied by the efforts of MOPH, led to public awareness on cigarette smoking and its negative impact on health of the population both smokers and non-smokers. This also resulted in effective public health measures, and subsequently legislation on the control of tobacco consumption in 2001 (Tangcharoensathien, Limwattananon et al. forthcoming in 2008).

After nearly a decade of dialogue and negotiation among government officials from the Ministry of Finance, health reformists, researchers, and civic groups, the Health Promotion Foundation Act was promulgated and enacted in 2001. This Act resulted in the establishment of the Thai Health Promotion Foundation (THPF), which is an autonomous organization funded by 2% earmarked taxation of tobacco and alcohol consumption (Siwaraksa 2005; Carroll, Wood et al. 2007).

The Foundation aims not only to reduce tobacco and alcohol consumption, but also to improve the state of well-being of Thais and empower the civic movements in the country, through funding supports of all efforts to move the society towards health promotion. A recent assessment from WHO indicates outstanding achievements of the THPF in terms of building networks and partnership with excellent results in raising public awareness on health problems caused by tobacco and alcohol consumption in the country (Thai Health Promotion Foundation 2007). It is note that other activities funded by THPF also addresses mortality caused by traffic injuries, at times, alcohol involves in such accidents due to drunk driving.

Due to a unique experience in new financing arrangement, this case study aims to draw lessons from the innovative and sustainable financing mechanism of health promotion implemented in Thailand

since 2001. It also provides information about literature review on disease burden caused by NCD in 1999 and 2004, reviews of financing health care in general, and financing health promotion in particular. In addition, findings from a questionnaire survey on current policy concerns among key stakeholders and policy makers towards NCD and level of financing health promotion are presented. This paper also assesses key success factors of THPF which include its structure, function and achievements, details of innovative financing of health promotion, and how this mechanism makes a difference in Thailand.

2. Methods

This case study applied several research methods, including quantitative and qualitative approaches for collecting and analyzing data related to burden of disease, and financing health promotion in Thailand. These were:

- Literature review on disease burden in 1999 and 2004 aiming identify the magnitude of NCD and changes in its share in disease burden between 1999 and 2004;
- Literature review on the Thai National Health Accounts from 1999 to 2005 with a focus on the amount of government spending on health promotion and disease prevention in relation to curative activities and personal health care;
- Primary data collection through a self-administered mail questionnaire survey to policy makers and key stakeholders to solicit their views on financing health promotion, innovative financing of health promotion, and health system capacity to address these concerns;

Sample and sampling

A mail questionnaire survey was conducted in August 2007. A sampling frame of all high-level officers (Level 9 and above) in the Permanent Secretary Office of MOPH Head Quarter and Disease Control Department, all Provincial Chief Medical Officers of 76 Provincial Health Offices, the Directors of all 92 regional and provincial hospitals, were applied.

The sampling frame also included non-MOPH stakeholders, for example those engaged in research institutes related to health care financing, National Health Security Office (NHSO), the Thai Health Promotion Foundation (THPF), NGOs, and mass media.

The questionnaire contained 25 questions on health promotion and innovative health financing. This questionnaire was a common protocol developed by IHPP in consultation and agreement by researchers in five participating countries through the coordination and support of WHO-SEAR.

- Policy analyses which resulted in policy recommendations and the way forward for improving sustainable and innovative financing of health promotion in Thailand.

3. Main findings

There are four main sections of research findings. This chapter starts from reviewing BOD comparing between 1994 and 2004, reviews of healthcare financing in Thailand with a special focus on financing health promotion, reviews of innovative financing health promotion, and the role of Thai Health Promotion Foundation. Finally, the result of stakeholders' views on health promotion and innovative financing were presented.

3.1 Burden of disease in Thailand in 1999 and 2004

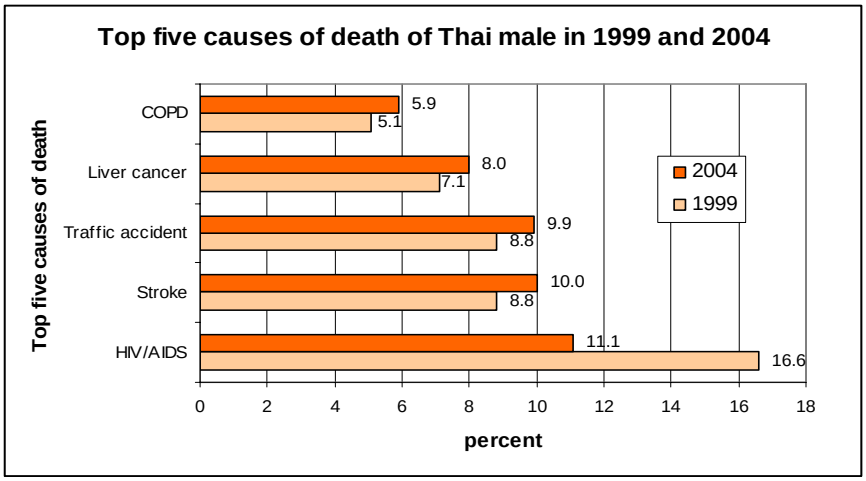
A comparative study on BOD in Thailand between 1999 and 2004 reveals an increasing trend of NCD as the leading causes of death among Thais. The 2004 BOD study shows the top-five leading causes of death in which HIV/AIDS was the first leading cause of death in men, this followed by stroke, traffic accidents, liver and bile duct cancer and chronic pulmonary obstructive disease (COPD). In women, stroke was the first leading causes of death, followed by diabetes, ischemic heart disease, HIV/AIDS, and liver and bile duct cancer (Table 1).

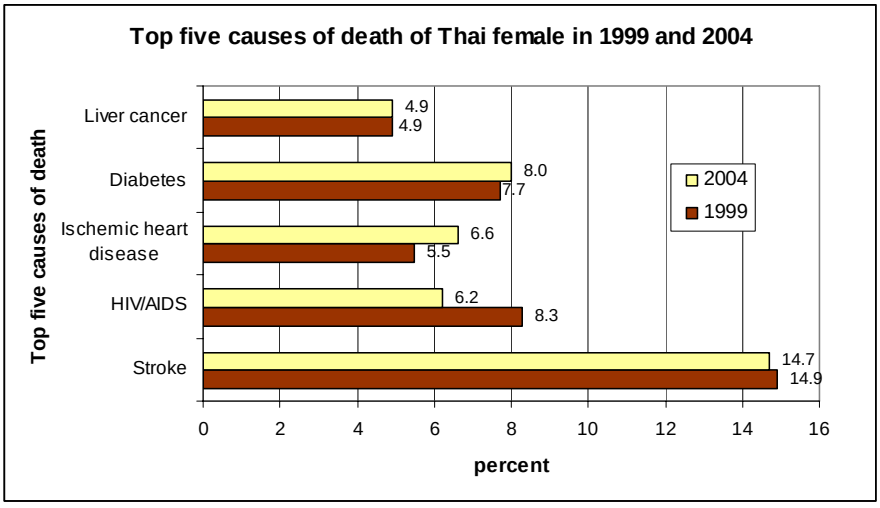
A comparison of the top five leading causes of death in men and women in 1999 and 2004 indicates a decrease in share of communicable diseases, especially HIV/AIDS, notably a major results of introducing universal access to ART in 2003, while share of mortality from NCD, namely stroke, road traffic accidents, liver cancer, diabetes, ischemic heart disease, and COPD, significantly increased in men and women in 2004 (Figure 1).

Table 1 Top twenty causes of death of Thais in 2004

Deaths						
Rank	Male				Female	
	Disease	Deaths ('000)	%	%	Deaths ('000)	Disease
1	HIV/AIDS	26	11.1	14.7	26	Stroke
2	Stroke	23	10.0	8.0	14	Diabetes
3	Traffic accidents	23	9.9	6.6	12	Ischaemic heart disease
4	Liver and bile duct cancer	19	8.0	6.2	11	HIV/AIDS
5	COPD	14	5.9	4.9	9	Liver and bile duct cancer
6	Ischaemic heart disease	13	5.6	3.8	7	Lower respiratory tract infections
7	Bronchus and lung cancer	9	3.7	3.4	6	COPD
8	Diabetes	8	3.5	3.2	6	Nephritis & nephrosis
9	Cirrhosis	8	3.4	2.9	5	Traffic accidents
10	Lower respiratory tract infections	7	2.9	2.5	4	Cervix uteri cancer
11	Tuberculosis	6	2.5	2.3	4	Tuberculosis
12	Drownings	5	2.1	2.2	4	Bronchus and lung cancer
13	Suicides	5	2.1	1.8	3	Breast cancer
14	Nephritis & nephrosis	5	2.0	1.8	3	Cirrhosis
15	Homicide and violence	4	1.8	1.8	3	Colon & rectum cancer
16	Colon & rectum cancer	3	1.4	1.5	3	Hypertensive heart disease
17	Mouth & oropharynx cancer	3	1.1	1.4	3	Diarrhoea
18	Billiary tract	2	0.9	1.1	2	Mouth & oropharynx cancer
19	Falls	2	0.9	1.0	2	Drownings
20	Low birth weight	2	0.9	1.0	2	Falls

Figure 1 Top five leading causes of death of men and women in 1999 and 2004



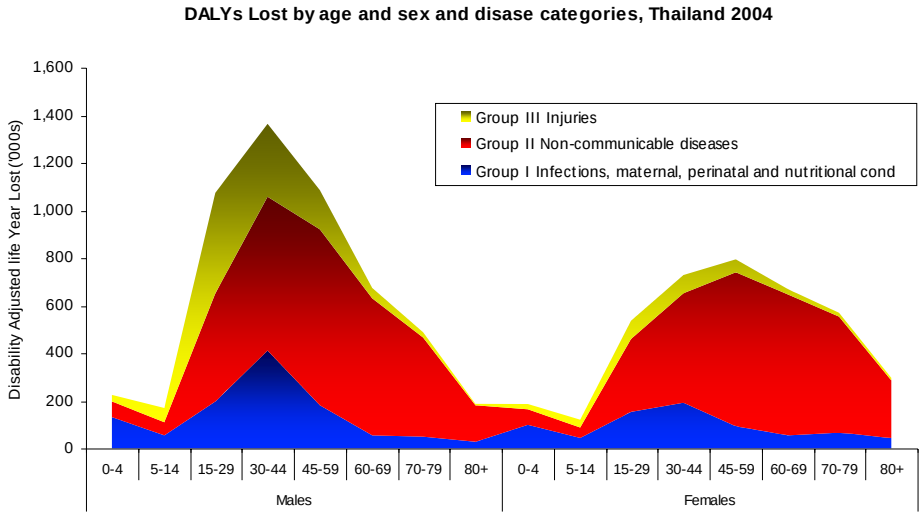


Source: The preliminary report on 2004 Disease Burden and Injuries in Thailand

In 2004, total DALY loss of Thais was 9.9 million which was higher than total DALY loss in 1999 (9.6 million). DALY losses in men (5.7 million in 2004 and 5.6 million in 1999) were higher than women (4.2 million in 2004 and 4.0 million in 1999) in both years of the studies. Among three different disease categories, DALY loss from communicable diseases, maternal and peri-natal conditions, and malnutrition decreased from 2.6 million in 1999 to 2.1 million in 2004. In contrast, DALY loss from NCD increased from 5.6 million to 6.5 million during the same period. The DALY loss from injuries was stable at 1.3 million in both years of study.

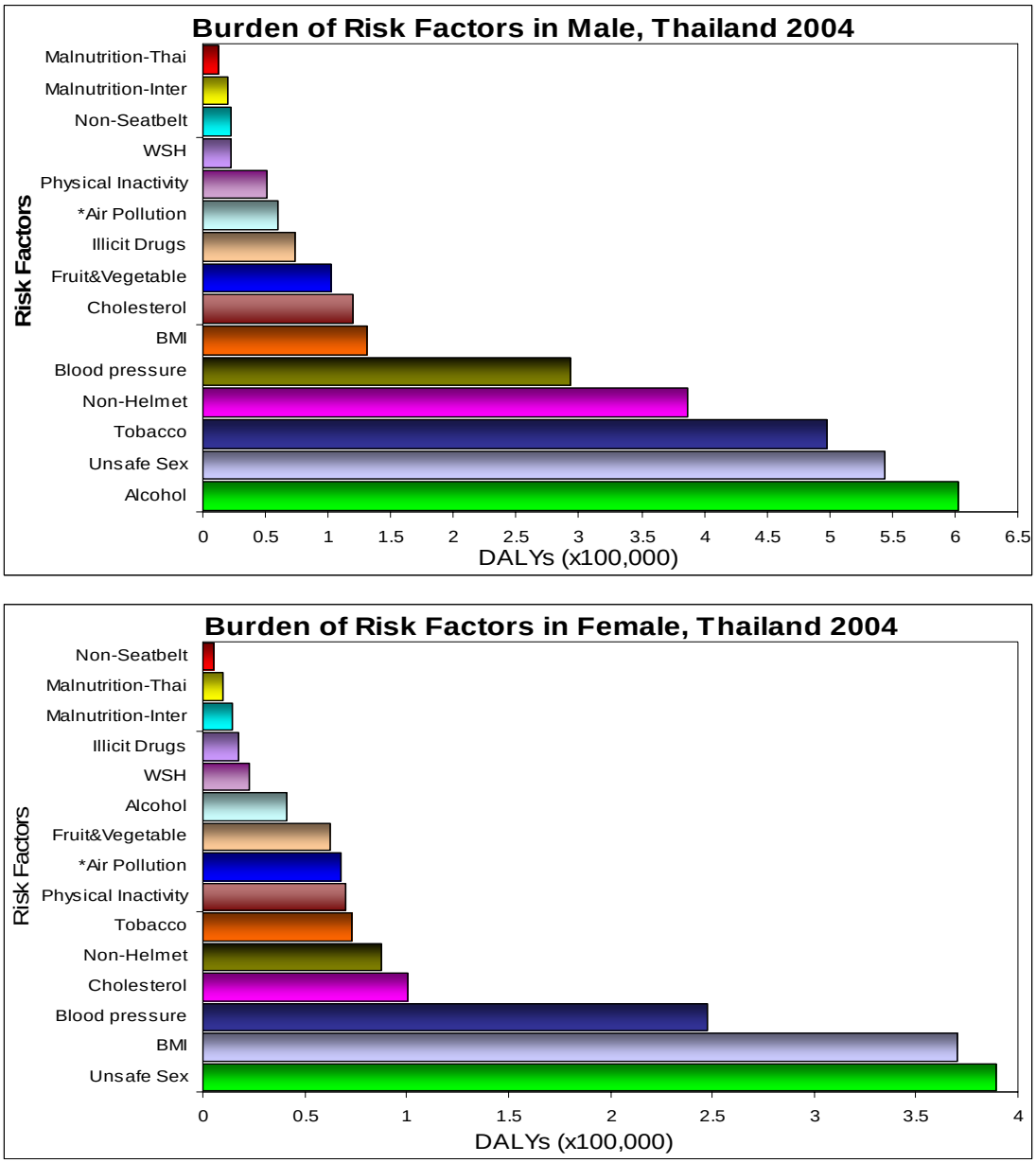
Findings from the 2004 BOD study reveal that NCD (or Group II) was the major cause of DALY loss in male and female aged higher than 15 years old (Figure 2).

Figure 2 DALY loss of Thai people by age group, gender, and disease category in 2004



An analysis of DALY loss by risk factor in 2004 shows that top-five risk factors attributable to disease burden in men were alcohol consumption, unsafe sex, tobacco consumption, not wearing helmets especially among motorcyclists, and high blood pressure (Figure 3). These risk factors were similar to those of women, except high body mass indexes and high blood cholesterol. The findings support the significance of NCD as the important risk factors contributing to disease burden in Thailand. Interventions on health promotion and disease prevention are urgently needed to tackle on these risk factors.

Figure 3 Burden of risk factors among men and women in Thailand in 2004



Source: The preliminary report on 2004 Disease Burden and Injuries in Thailand (IHPP 2007)

3.2 Healthcare financing in Thailand

Similar to other developing countries, the Thai health care system has been financed by a mixture of health financing sources, namely general taxes, social health insurance contributions, private insurance premiums, and direct out-of-pocket payments. Share of different financing sources evolved slowly in view of the country's socio-economic and health system development. Government policies on reforming health care finance and health insurance, for example, the launch of a voluntary publicly

subsidized insurance scheme (the Voluntary Health Card) in 1982 and the promulgation of Social Health Insurance (SHI) Act in 1990, had a considerable impact on health care financing arrangements.

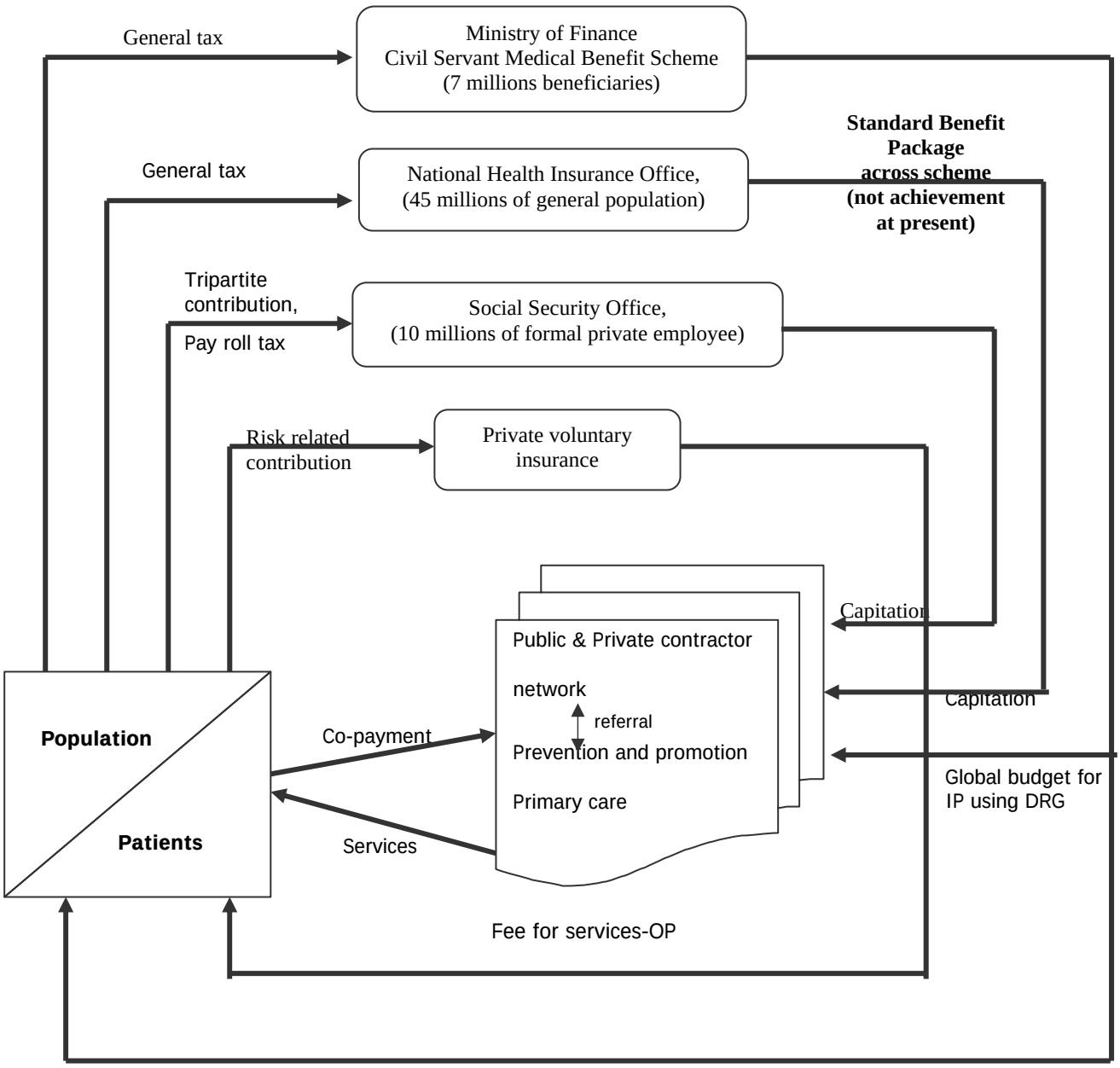
Before the economic crisis in 1997, household out-of-pocket payment (OOP) was the major source of health care finance, but the share of OOP has decreased after the crisis, while share of public financing sources gradually increased (International Health Policy Program 2005; Tisayatikom, Patcharanarumol et al. 2007). Apart from the reduction in household purchasing power after the economic crisis, government policies on the expansion of health insurance coverage to targeted population such as the Low Income Card (LIC) scheme and the implementation of a policy on universal coverage (UC) in 2001 contributed considerably to the reduction in household spending on health. An increase in government health spending on the Civil Servant Medical Benefit Scheme (CSMBS) and the Social Health Insurance (SHI) is also another factor for the increase in public health finance after the 1997 economic crisis.

After the introduction of the policy on universal coverage in 2001, there are three major public schemes providing health insurance for the entire population of Thais. These are:

- the Civil Servant Medical Benefit Scheme (CSMBS) which covers around six million government employees and their dependants;
- the Social Security Scheme (SSS) which protects private employees in the formal sector from non-work related health care expenditure; and
- the UC scheme which covers the rest of population and replaces previous government-subsidized health insurance schemes, namely the Low Income Card scheme (LICs), the Voluntary Health Card (VHC) scheme, the Welfare Scheme for the elderly and children aged less than 12 years.

Health financing arrangements and health service provision of the Thai health care system after universal coverage can be summarized as Figure 4.

Figure 4 Health financing arrangements and service provision of the Thai health care system after UC



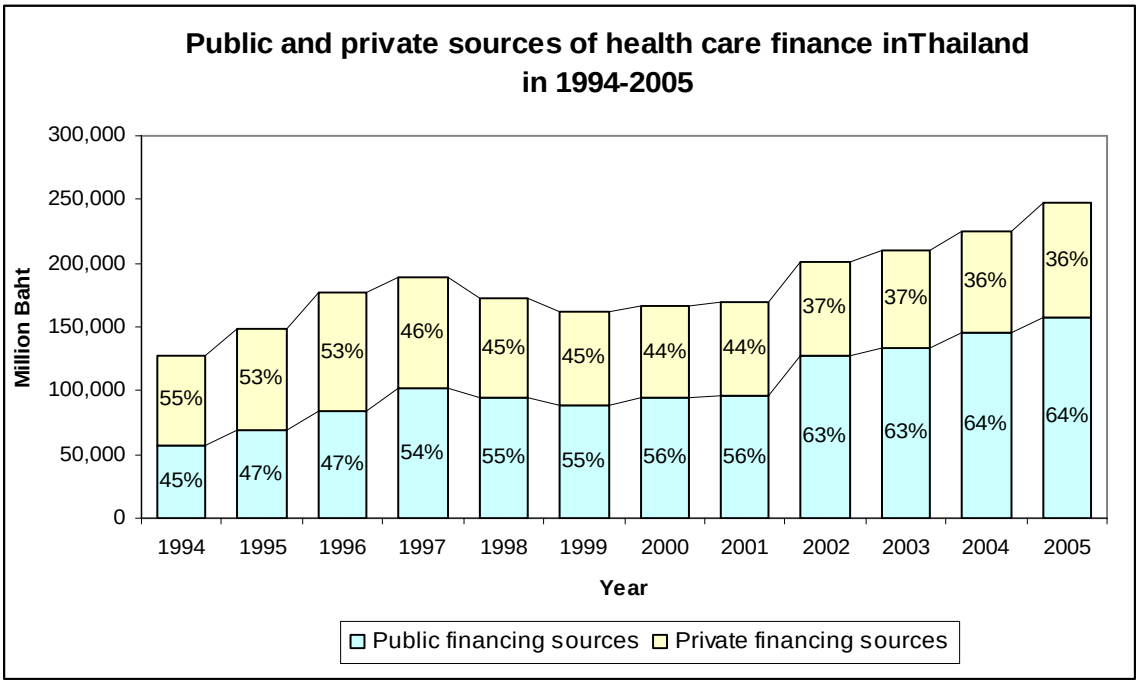
Source: Health care financing for universal coverage in Thailand (Tangcharoensathien, Vasavid et al. 2004)

Empirical evidence indicates that after the UC instigation, the poor had better access to and utilization of health services, and benefited more from the public subsidy on health, compared to the better-off (Pannarunothai, Patmasiriwat et al. 2002; Tangcharoensathien, Vasavid et al. 2004; Prakongsai, Palmer et al. 2006). Furthermore, the incidence of catastrophic health expenditure decreased after the UC policy was introduced (Limwattanonon, Tangcharoensathien et al. 2005; Limwattananon, Tangcharoensathien et al. 2007).

A recent study on the 2005 NHA in Thailand provides information about changes in share of public and private health care financing sources, and the flow of health resources by health care function (Tisayatikom, Patcharanarumol et al. 2007). On financing sources, the share of public financing sources has became the majority of health care finance since the economic crisis in 1997 (Figure 5) (International Health Policy Program 2005). The share of public financing sources increased significantly from 56% in 2001 to 63% in 2002 after the implementation of the universal coverage, and it reached 64% in 2005.

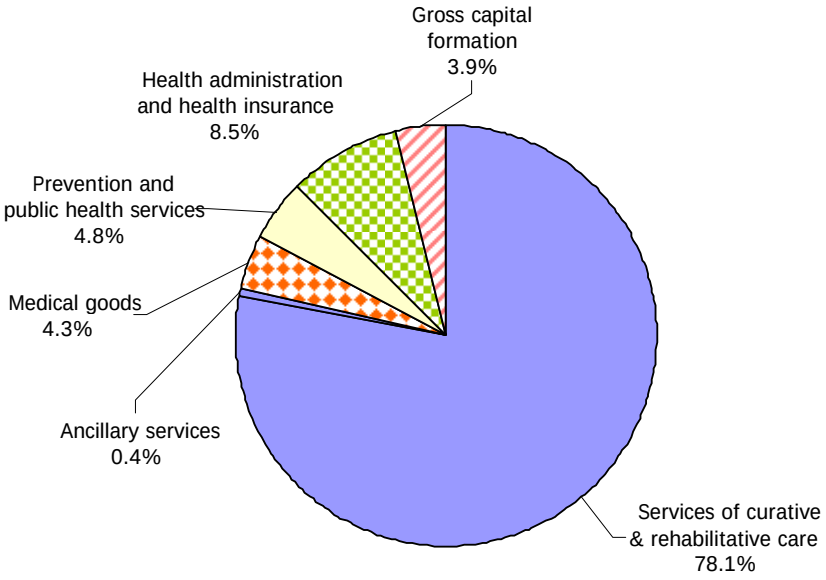
By health care function, the 2005 NHA indicates that the majority of health expenditure (78%) was spent for curative services and rehabilitative care, while only 4.8% of total health expenditure was used for public health services and disease prevention activities, again these activities were dominated by clinical prevention and personal health services, and did not directly address the primary prevention domains (Figure 6). This proportion was less than that in 1994, which 7.1% of total health expenditure was spent for public health services and disease prevention. This curative focused expenditure is worrisome to policy makers.

Figure 5 Share of public and private sources of health care finance in Thailand in 1994-2005



Sources International Health Policy Program, National Health Accounts in Thailand 1994-2005.

Figure 6 Total health expenditure by health care function in 2005



Among the three public health insurance schemes, health promotion and disease prevention was included into the benefit package of the UC scheme only. It is very unfortunate that CSMBS and SHI deliberately excluded prevention and health promotion from their benefit packages, on the ground that these two insurance funds were for curative purposes. The authors' consistent dialogues failed to convince "the tunnel view" policy makers of the CSMBS and SHI to amend their Law in order to accommodate disease prevention and health promotion into their benefit packages.

The amount of government health budget allocated to health promotion and disease prevention under the UC scheme increased from approximately 980 million Baht or 175 Baht per UC beneficiaries in 2001 to 10,738 million Baht or 225 Baht per UC beneficiaries in 2006 (Chunharas, Dhamrikarnlerd et al. 2007). However, this budget was allocated for the whole population, not only for UC members. Given that the CSMBS and the SSS did not include health promotion and disease prevention into their benefit packages, therefore, no health resource from these two schemes was allocated to health promotion and disease prevention activities. This was likely to be another reason of why share of health resources for health promotion and disease prevention in Thailand was very low, compared to total health care expenditure.

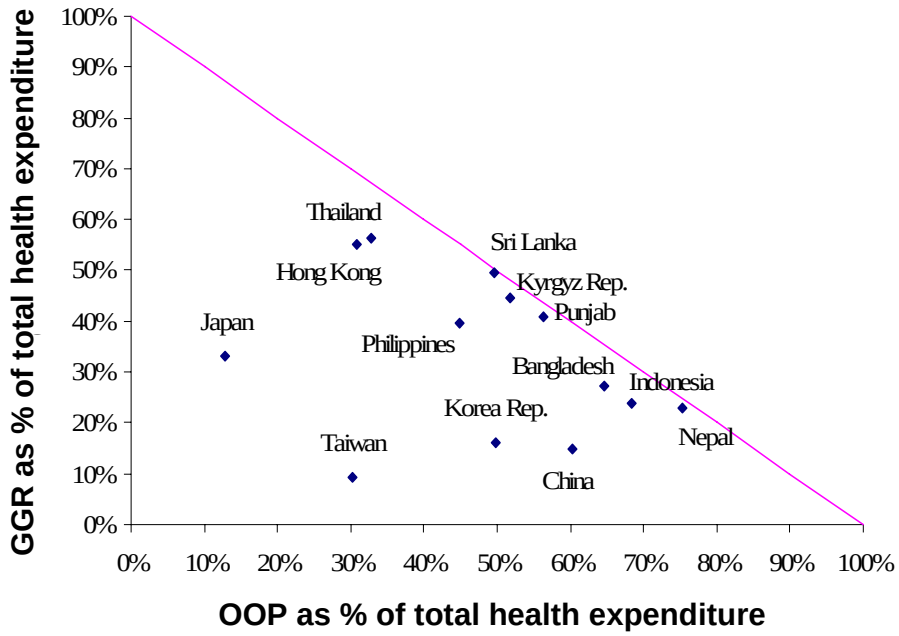
It is worth noting that after the promulgation of the Health Promotion Foundation Act in 2001, greater public revenues tend to be allocated to health promotion and disease prevention because 2% earmarked taxes from tobacco and alcohol consumption have been used for health promotion and disease prevention activities supported through the THPF. However, this amount of sin tax through

THPF, a very tiny proportion of total health expenditure, cannot serve as an adequate financial leverage to halt and reverse the trend of chronic NCD.

Thailand is one of developing countries where direct payments for health from households play an important role in financing healthcare. The share of out-of-pocket payments (OOP) to the total health expenditure in 2000 was approximately 33% (Figure 7). The major health care financing sources was public funding, especially from tax revenues (56%) and the mandatory social health insurance contributions among formal private sector employees (5%). Private voluntary insurance premiums contributed 6% of total health expenditure.

Figure 7 shows different shares of out-of-pocket payments (OOP) for health and general government revenues (GGR) as percentage of total health expenditure in selected countries in the Asia-Pacific Region. Countries or territories close to the diagonal line, e.g., Sri Lanka, the Punjab of India and Kyrgyz Republic, were almost totally funded either from general government revenue (GGR) or out-of-pocket payments without other sources especially the Social Health Insurance (SHI). In Japan and Taiwan, SHI played a significant role, owing to very large formal sector public and private employment.

Figure 7 Share of out-of-pocket payments (OOP) and general government revenue (GGR) in total health expenditure in Asia-Pacific region in 2000



Source: O'Donnell, van Doorslaer et al. (2005)

In 2002, an analysis of financial incidence using data on household consumption expenditure in the national household socio-economic surveys (SES) indicates that the better-off population in Thailand

contributed more to health care finance, compared with the worse-off, this reflected the progressivity of financial contribution in health. The concentration indices (CI)[2] of health care financing in 2002 (after the implementation of universal coverage) were very positive across all major funding sources: 0.9057 and 0.5776 for direct and indirect taxes, which covered 50.2% of total health expenditures (O'Donnell, van Doorslaer et al. 2005). This resulted in a concentration index of 0.6996 for the general taxation and 0.5929 for total health care financing. The way Thailand finances its health care system was the most progressive and pro-poor among 13 countries and territories in the Asia-Pacific region.[3]

3.3 Innovative financing: Thai Health Promotion Foundation

After the promulgation of the Health Promotion Foundation Act in 2001, the Thai Health Promotion Foundation (THPF) was established as an autonomous organization. The Act granted a statutory public organization status for the Foundation and earmarked 2% additional taxation from tobacco and alcohol consumption as the primary funding source. The mission of THPF is to empower civic society and promotes well-being of the citizens, by acting as a catalyst, and to provide financial support for projects that change social values, lifestyles, and environment conducive to health. Its mission is based on broad definition of health and the application of the Ottawa Charter. THPF plays a supplementary role to the current players in health promotion, which invites collaboration and avoids resistance. It weaves different partners into networks and works closely together en route to national well-being.

Key priority programs supported by THPF include for example, the introduction of health promotion, creating awareness against unhealthy behaviour, supporting campaigns against tobacco and alcohol consumption, and supporting research in health promotion (Thai Health Promotion Foundation 2007). To achieve these goals, THPF employs four synergistic strategies: social mobilization; system development; healthy community development; and strengthening social capital. These four strategies concertedly support each other which strengthen the community and general public towards healthy life style.

By law, THPF has two governing boards, the Governing Board and the Evaluation Board, appointed by the Cabinet. The Governing board has eleven members from the public sector [the Prime Minister is

[2] The concentration index (CI), an index of the distribution of payments, ranges from -1 to 1. A positive (negative) value indicates that the rich (poor) contributes a larger share than the poor (rich), while a value of zero indicates that everyone pays the same, irrespective of ability to pay.

[3] In the EQUITAP project, countries/ territories include Bangladesh, the People's Republic of China, Hong Kong SAR, India (Punjab), Indonesia, Japan, Korea Republic, the Kyrgyz Republic, the Philippines, Nepal, Sri Lanka, Taiwan ROC, and Thailand.

the chair, and ten other *ex officio*], and eight members from non-governmental sectors selected from their personal capacities. THPF provides a mandatory annual report to the Cabinet and House of Representatives on its achievements and performance.

Proposals and projects granted by THPF are categorized into eight clusters. Each cluster has an expert Steering Committee providing guidance, oversee proposals and project implementation. According to the country's context, THPF usually has a common issue, which cuts across relevant clusters, for example, Youth and Health issue in 2006.

The total revenue of THPF in fiscal year 2005 was 2.32 billion Baht (approximately US$ 57.9 million), with a 10% annual growth in nominal term (Thai Health Promotion Foundation 2005). This is equivalent to US$1 per capita, compared to an average US$ 6.4 per capita (spent on conventional health promotion activities, mostly clinical preventive and personal health services) in 2000-2002 (Tangcharoensathien, Somaini et al. 2006). Though per capita expenditure by THPF is small, it serves as a catalytic function, engaging civil society and massive social mobilization. THPF is not an adequate financial leverage towards primary reduction of health risk, unless the conventional health promotion expenditure decides a major shift from clinical settings towards community based public health interventions, tax and law enforcement and social mobilization towards healthy lifestyle.

The share of revenue from alcohol excise tax is nearly double of that from tobacco. From the historical trend and current tax rate, THPF revenue is expected to increase from US$ 57.9 million in 2005 to US$ 116 million by 2020. In 2005, THPF spent 2.52 billion Baht, slightly more than the current revenue; the deficit was absorbed by previous reserves. Of the total 2005 expenditure, 96% was granted to health promotion projects. THPF is a lean organization where operating and staffing expenditure were 2.5% and 1% of total expenditure, respectively.

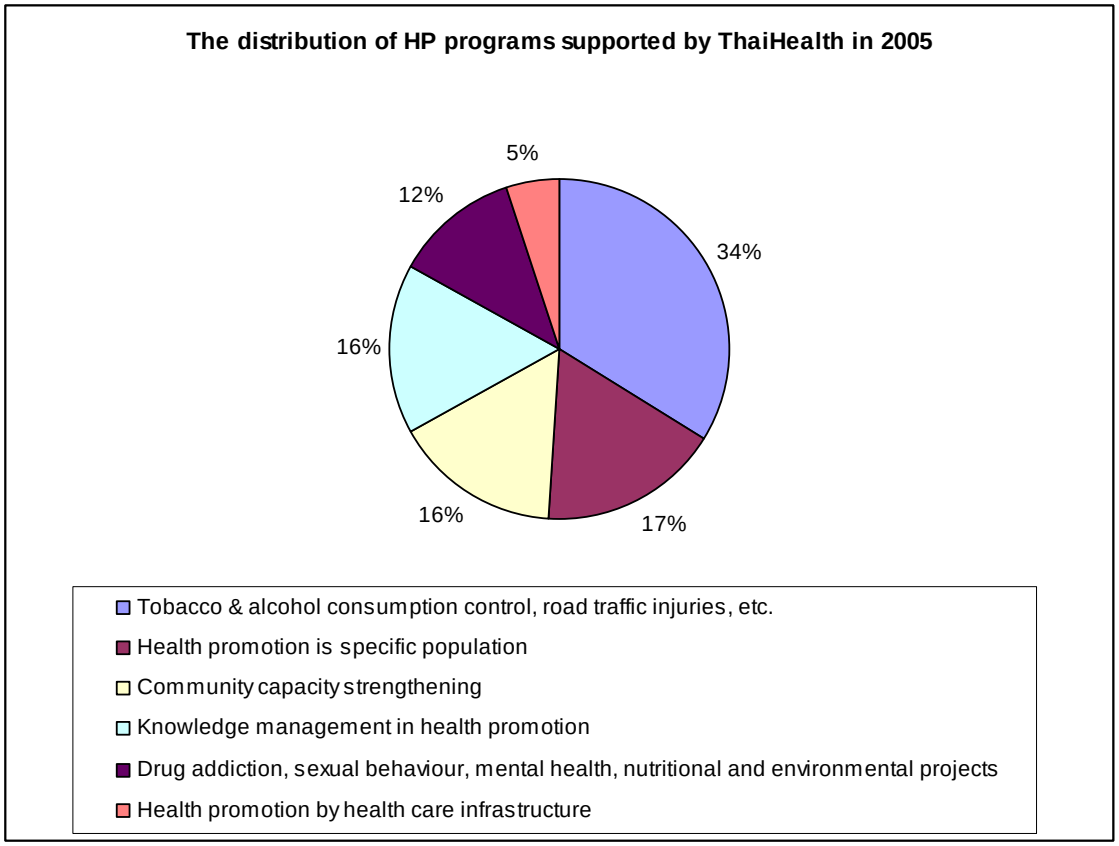
THPF is regularly assessed by an external independent committee. Three dimensions of performance on health promotion (relationship with partners, project funding, and impact on population) were assessed by the external committee (World Health Organization Regional Office for Western Pacific 2004).

An assessment indicates that THPF harmonized the existing scattered social capital and all like-minded people across the Nation, and interlacing them into a health promotion network, both area-based and issue-based. For example, the Stop Drink Network consisting of 144 partner organizations nationwide, worked jointly to reduce alcohol-related problems. Networking is a key success of the No Alcohol Campaign in Thailand.

On funding portfolio, in 2005, THPF supported over 700 projects. More than one-third of the funded projects were on tobacco, alcohol, and prevention of road traffic injuries (34%), health promotion among specific groups of the population (17%), and community capacity strengthening (16%) (Figure 8).

The funding portfolio conformed to the national priority and strategic plan. The Evaluation Board, however, identified some inconsistency of project plans and targets such as projects for community capacity strengthening and knowledge management in health promotion, particularly among these projects in the same geographical area (Thai Health Promotion Foundation 2005).

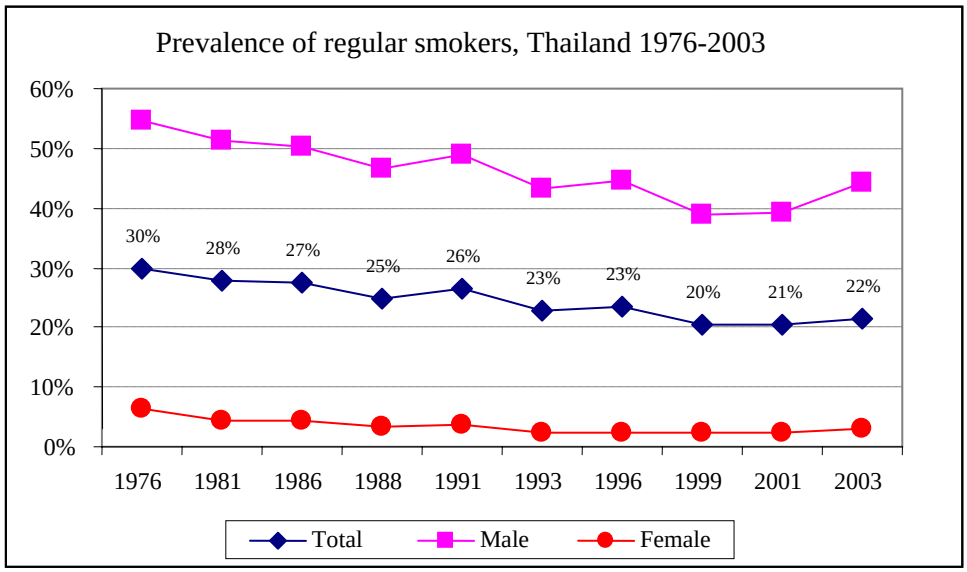
Figure 8 Share of health promotion programs funded by the THPF in 2005



On the impact of the THPF on population, a nationally representative household survey conducted regularly by the National Statistical Office (NSO) of Thailand includes household consumption expenditure on tobacco. Figure 9 demonstrates the 1976-2003, the prevalence trend of regular smoker among population more than 11 years old. Men had much higher prevalence rate than women. A decreasing trend was observed well prior to the establishment of the THPF in 2001, as a result of the tobacco campaign in the late 1980s. A stagnation of progress was observed in early 2000s. Despite the strong enforcement of two tobacco laws: the 1992 Tobacco Product Control Act and the 1992 Non-Smoker Health Protection Act, much has still to be done to bring down smoking

prevalence especially among the young adolescents. Real battles were evident between transnational tobacco industry and the THPF, NGO, and civil societies.

Figure 9 Trend of prevalence of regular smokers among population more than 11 years old, 1976-2003



Source: National Statistical Office, Health and Welfare Surveys in 1976-2003

THPF has demonstrated success in policy advocacy, public awareness and national health promoting capacity building. Tobacco and alcohol supply control, regulation of alcohol advertisements, and road safety campaigns, are examples of initial achievements (Thai Health Promotion Foundation 2005). The 1.2 million alcohol drinkers' intention to abstain from alcohol during the three month Buddhist Lent period in 2005 was evidence of a broad based societal impact of the THPF (Stopdrink Network n.d.),.

Lessons on success factors

Based on in-depth interviews of key stakeholders involved in the initiation and implementation of VicHealth, Australia (a sister agencies of the THPF), three enabling factors were identified: (1) organizational resilience to rapidly changing contexts and national problems; (2) financial security; and (3) effective strategies.

The THPF, a quasi-public agency enjoys an autonomous status, and free from bureaucratic rigidities. It has corporate status and legal capacity to sign contract and granting projects, in a very flexible manner, while maintains its accountability to society and tax payers, through the functions of the Evaluation Board, External Auditor, External Program Evaluators, and annual reporting mechanism to the Cabinet and the House of Representatives.

It allows full flexibility in coordinating multi-stakeholders, civil society, community-based organizations, individuals and partners in public and private sectors without rigid bureaucratic rules, red-tape and regulations. A new set of skill-mix is needed to manage the THPF, especially setting strategic and program direction, engaging partners and networking, campaign skills and massive social mobilization, proposal reviews, and granting and implementation monitoring.

Dedicated taxes from tobacco and alcohol ensure security and sustainability of the Fund. The THPF receives transfer of tax on a daily basis from the Excise Department. Use of the Fund is approved by the Steering Committee, and is free from political influences (Carroll, Wood et al. 2007)

Finally, THPF plays a catalytic and complementary role to the existing health promotion players. The MOPH health promotion activities, mostly clinical preventive services are delivered by public healthcare institutions, and have little to do with other social determinants on health. The THPF fills in the gaps and limitations faced by these partners. Table 2 summarizes the two models of financing health promotion; conventional and innovative financing.

Table 2 Compares two models; conventional and innovative financing health promotion

	Conventional financing	Innovative financing
Source of finance	Government budget through annual budget cycle	Earmarked sin tax, social insurance contributions
Organization and management	Government agencies (federal and local)	Autonomous public agencies, corporate status and legal entity for grant signing
Governance and accountability	Mostly dominated by public agencies, bureaucratic inertia, conservative approaches	Multi-partners involvement, civil society involvement
Financial sustainability	Subject to political manipulation, priority and decision	Opportunity to increase tax for alcohol and tobacco, generate more revenue for the government and the Fund, and halt consumption especially the young adolescents.
Deliverables	Conventional HP services, mostly clinical preventive services	Community based, school based, factory based, social mobilization, campaign nature, through networking with partners and stakeholders
Organization and management	Less flexible, difficult to contract community based organization, non-governmental agencies	Exercise a full flexibility in management, campaign, contract and engage broad base partners

3.4 Stakeholders views on health promotion and innovative financing

This section presents the results of a questionnaire survey launched to elicit views of stakeholders and policy makers on the subject of innovative health financing.

Approximately 300 mail questionnaires on innovative financing was launched to the targeted groups as described above, of which 117 completed questionnaire were received and analyzed. The response rate was 39%.

Of the total completed questionnaires, 77% of respondents were male and 21% were female, 2% did not report their gender. Their age ranges from 25-74 years with an average of 50 years. The majority of respondents' professional background was health-related administrators (51%), followed by public health 26%, medical professionals 19%, mass media 2%, NGO 1% and other 1% (Table 3).

Table 3 Characteristics of respondents, 2007

Characteristics	Details (N=117)
Gender	
• Male	77%
• Female	21%
• Missing	2%
Age	
• Range of respondents' age (years)	25-74
• Mean age (years)	50
Professional background	
• Medical professionals	19%
• Health related administrators	51%
• Public health	26%
• Mass media	2%
• NGOs	1%
• Others	1%

Regarding opinions on the magnitude of chronic NCD in the country and adequacy in health care finance, most respondents rated the magnitude of NCD in Thailand as severe (94%), only 6% rated moderate. Only 15% of respondents stated that the Thai health care system was sufficiently financed, while 84% of them disagreed. Health promotion and disease prevention was rated as a moderate priority by the Government by 59% of respondents, and 25% said it was already given high priority, while only 16% quoted it as low or no priority.

Out of those who viewed government high priority towards health promotion and disease prevention, 81% confirmed that the high level policy Statements were in favour of health promotion. More than 80% of them confirmed the availability of national policy documents, existing government budget

lines for health promotion, and earmarked revenue for health promotion through tobacco and alcohol excise taxes (Table 4). However, the majority of this group disagreed the government should earmark specific health budget to health promotion.

Table 4 The percentage of agreement on evidence of government priority on health promotion (N=95)

Evidence of priority	Agree	Disagree
• The country's high priority level statement in favour of health promotion	81%	19%
• National policy documents on health promotion	80%	20%
• Existing government budget lines for health promotion	80%	20%
• Earmarked revenue for health promotion such as tobacco and alcohol, etc.	81%	19%
• Specific earmarking health budget to health promotion	47%	53%

When the relative size of burden of disease caused by NCD was compared to the level of health care finance for health promotion and disease prevention, 53% of respondents stated that there was insufficient resource for financing health promotion and disease prevention, and 8% said that the level of financing HP was severely insufficient. However, 26% agreed that there were moderate resources and 17% thought that resources for HP and disease prevention were sufficient or abundant.

Among 69 respondents who said that the government budget for health promotion and primary prevention for NCD was insufficient or severely insufficient, approximately 45% of them agreed that the current spending needs to be doubled. Around 28% of them supported to triple the level of current spending, and 15% said that it should be more than quadruple of the current level.

On a question about the availability of innovative or special financing mechanism for health promotion, only 64% of respondents knew that there was an innovative financing for health promotion in Thailand, while 25% said that there was no innovative financing mechanism, and 12% did not know whether such financing arrangement was existing or not. When opinions towards innovative financing mechanism were asked, approximately 76% of respondents supported or strongly supported such financing arrangements, while only 1% disagreed and 2% were neutral. There were 21% of respondents who failed to answer this question.

On household spending on health promotion and disease prevention, approximately 82% of respondents viewed that households in Thailand spent too little for health promotion and disease prevention, and 12% did not know how much households spent for such activities. Only 2% said that households spent the right amount and 2% claimed that Thai households spent too much for health promotion and disease prevention.

On the feasibility and desirability of the potential sources of financing health promotion and disease prevention, a list of potential sources of financing health promotion (namely general tax, earmarked taxes from VAT, gasoline, tobacco, alcohol consumption, social health insurance fund, domestic and international donors, and other sectors such as transportation, agriculture and education) were provided and asked for their opinion. The respondents scored the earmarked taxes from tobacco and alcohol consumption as the two most feasible and desirable sources for financing health promotion, followed by earmarking from social health insurance fund, Value Added Tax --VAT, and general tax (Table 5). Allocation resources from other government sectors were scored as the least feasible and least desirable source of financing health promotion.

Table 5 Mean score of desirability and feasibility in potential sources of financing health promotion, sorted by level of desirability

Potential sources of financing health promotion	**Desirability (Score 1-5)**		**Feasibility to generate resources (Score 1-5)**	
	mean	**Std dev**	**mean**	**Std dev**
1. Earmarked tax from alcohol consumption	4.51	1.111	4.21	1.270
2. Earmarked tax from tobacco	4.41	1.233	4.21	1.221
3. Earmark from social health insurance fund	3.73	1.406	3.07	1.413
4. General tax	2.78	1.515	2.59	1.481
5. Earmarked from Value Added Tax	2.95	1.629	2.39	1.432
6. Donor resources – domestic organizations	2.73	1.442	2.40	1.365
7. Earmarked tax from gasoline	2.66	1.587	2.12	1.378
8. Donor resources – international organizations	2.49	1.518	2.09	1.374
9. Reallocate resources from other sectors such as transportation, agriculture, education, etc.	2.25	1.444	1.62	1.150

Note:

Score 1– least desirable least feasible,
Score 2 – less desirable, less feasible,
Score 3 - neutral,
Score 4 – more desirable, more feasible,
Score 5 – most desirable and most feasible.

On resource mobilization, approximately 46% of the respondents disagreed if the government would raise additional financial resources to support health promotion and disease prevention from other sectors such as transportation or education, while similar proportion (44%) agreed with this statement. Likewise, divide opinions were observed on mobilizing financial resources from curative services to support health promotion and disease prevention, 49% agreed while 48% disagreed. The majority of the respondents (58%) agreed to the establishment of an autonomous body to manage funds for health promotion, while 32% disagreed of having this body. Most of them (71%) also agreed that the government can use a public organization to manage funds for health promotion, while 47% of them disagreed to allow NGOs to manage such funds (Table 6).

Table 6 Opinions on innovative financing for health promotion

Policy statements	Agree	Disagree	Don't know	missing
• The government should raise additional financial resources to support health promotion and disease prevention activities e.g. from other sectors such as transportation, education, etc.	44%	46%	8%	2%
• The government should mobilize financial resources within the health sector, for example, from curative activities to support health promotion and disease prevention.	49%	48%	1%	2%
• There is a need for establishing an autonomous organization or body to manage funds for health promotion.	58%	32%	7%	3%
• The government can use a public organization to manage funds for health promotion.	71%	18%	9%	3%
• The government can use NGOs to manage funds for health promotion.	38%	47%	12%	3%

Though the THPF is the innovative financing health promotion in Thailand, we also asked their opinions on the barriers to introduce innovative financing of health promotion. Several key barriers were mentioned: 1) lack of visions and commitments to improving population health among politicians and policy makers; 2) limitations in financial and human resources for health promotion and disease prevention; 3) bureaucratic system and poor management of the government; 4) poverty and lack of community participation; and 5) lack of knowledge and inadequate information on the magnitude of NCD and its impact on public health (Table 7). Ignorance and a lack of awareness of the general public and policy makers were also voiced as barriers.

Table 7 Perceived barriers to introduction of innovative health financing

Barriers	Frequency
1. Lack of commitment to improving people health of politicians and policy makers	More than 40
2. Inadequate financial and human resources for health promotion	More than 40
3. No clear policy objective on health promotion and disease prevention	More than 25
4. Bureaucratic system and poor management of the government	20
5. Poor people and community participation	18
6. Ignorance and a lack of awareness of the public and the policy makers	15
7. Lacking of knowledge and inadequate information on the magnitude of NCD and its impact on population health	9
8. Poor coordination and no continuity of the policy on health promotion and disease prevention	8
9. Inadequate health service provisions for health promotion and disease prevention	6
10. A lack of legislation supporting health promotion and disease prevention	4

Note: Total respondents analyzed were 105 and each respondent could provide up to three barriers.

Likewise, respondents were asked about the main enabling factors for innovative financing of health promotion. Opinions varied, the majority thought good public policies and political parties, leadership and good governance, adequate financial and human resources, and public and community awareness were essential enabling factors. In addition, political support, enabling environment and legislation, social movement, support from the media, people and community participation, were factors voiced by many.

Opinions on the top three programs or activities of health promotion and disease prevention that the government should finance are quite varied. There is a great variation in health promotion and disease prevention activities / programs suggested by respondents. However, the majority of the opinions can be categorized into five groups which are to:

- tackle major NCD and CD attributable to significant BOD notably Road Traffic Injuries, diabetes, hypertension, HIV/AIDS and stroke.
- minimize and prevent exposure to risk factors notably tobacco and alcohol, sedentary life style, high caloric and fatty food consumption.
- increase public awareness, knowledge and community participation to curb major NCD and CD

- improve database systems and legislation.

On approaches of intervention, either an issue-based, setting-based, or population-based, should be applied if there are additional financial resources for health promotion, the majority of the respondents (43%) preferred a population-based approach as the highest priority, and the setting-based (e.g. school program, workplace program) approach as the second priority (46%), and the issue-based approach (e.g. dengue, HIV/AIDS, NCD etc.) was the least preferred choice by 61% of respondents (Table 8).

Table 8 Opinions towards approaches of intervention where additional resources available (N=102)

Approaches	Highest preferred	Medium preferred	Least preferred
• Issue-based approach such as HIV/AIDS, dengue, malaria, non-communicable disease, etc.	27%	13%	60%
• Setting-based approach such as schools, villages, workplaces, etc.	29%	46%	25%
• Population-based approach such as young people, women, elderly, etc.	43%	41%	16%

4. Discussion

Evidence from the 1999 and 2004 studies consistently indicates an alarming sign of increasing disease burden from NCD measured by total national DALY loss. The financial and economic implication of Chronic NCD is huge due to the direct costs of long term chronic medical treatments mostly expensive cardiovascular medicines, diagnostic and other clinical interventions, disability and premature mortality.

Evidence from NHA indicates a decreasing trend of expenditure on health promotion and disease prevention, down from 7.1% of THE in 1994 to 4.8% in 2005, while the lion share was personal curative and rehabilitative services, 78% of total health expenditure in 2005. This excessive curative focused expenditure is worrisome to policy makers.

Though the recent health financing reform towards Universal Coverage in 2002 marked significant health equity achievements in access to and use of health services notably by the poor rural population, increasing equitable financial contribution and pro-poor health budget subsidies measured by benefit incidence; the reduction in the proportion of prevention and health promotion against the curative components in the UC Scheme posed policy concerns on allocative efficiency, should the government invest more on health promotion?

It is very unfortunate that the CSMBS and SHI deliberately exclude prevention and health promotion from their benefit packages, on the ground that these two insurance funds are for curative purposes, literally interpretation the text in the Law. The tunnel view of policy makers of the CSMBS and SHI are much to be blamed, as regard to their resistance to amend their Law in order to accommodate prevention and health promotion into their benefit packages.

There is a loss of opportunity to actively invest in health of the social security scheme beneficiaries. There is a huge surplus, more than a few trillion Baht of short term benefit in the Social Health Insurance Fund generated from capitation contract model. This should be actively invested in active health promotion and social mobilization at workplace for almost 9 million private sector employees.

Revenues of the THPF, a levy of 2% additional sin-tax from tobacco and alcohol consumption, US$ 57.9 million in FY2005, equivalent to US$1 per capita population was too small to serve as a meaningful leverage to counteract with the strong trend of chronic NCD, when compared to an average US$ 6.4 per capita spent on conventional health promotion activities, mostly clinical preventive and promotion services in 2000-2002.

Despite per capita expenditure by the THPF was small, it played a catalytic role in engaging civil society and massive social mobilization. The THPF is not an adequate financial leverage towards primary reduction in health risk, unless the conventional health promotion expenditure decides a major shift from clinical settings to community based public health intervention, tax and law enforcement and social mobilization towards healthy lifestyle.

In conclusion, though resources for health promotion were far too low compared to curative services, most of this funding went to personal clinical preventive and health promotion services and nothing left for other public interventions such as primary reduction, improvement of life styles, better diet and exercise and law enforcement. The THPF resources were far too small though it played a significant catalytic role in mobilizing the public awareness toward major killers such as tobacco, alcohol and road traffic injuries, THPF resources were far too small to serve as a strong leverage in order to halt and reverse the trend of chronic NCD. Two major stakeholders, policy makers of the CSMBS and SHI had a tunnel view, and yet to be convinced to invest more in health promotion for their beneficiaries.

5. Policy recommendations

Having discerned the current situation in Thailand, the authors wish to deliver the following policy messages.

1. Increase level of financing health promotion and primary, secondary prevention of disease through:
    a. a significant increase in MOPH annual budget on health promotion;
    b. amendments of the CSMBS regulation and Social Security Act to incorporate health promotion and disease prevention as its mandate. When resource is available, it must not be allocated to convention clinical prevention and personal health services only, but rather use for mobilization towards healthy life style of their beneficiaries. There is no institutional capacity and good attitude in the Ministry of Finance (MOF) who is responsible for the CSMBS, and the Social Security Office (SSO) for SHI towards effective management of these resources. The THPF experiences in management funds should be outsourced to manage these resources. The most practical approach is setting approaches.

2. Increase value for money of conventional clinical prevention and health promotion services through:
    a. the application of a recent publication on “Disease Control Priority for Developing Countries – 2nd edition” authored by Jamaison et al (2006). This report is a compendium of systematic reviews on the cost effective interventions, for

example, increase tobacco and alcohol tax, total ban on tobacco adverts, supply side control of alcohol consumption;

b. improvement of program effectiveness based on evidence, for example, a multi-centre randomized control trial reported that Provision of routine antenatal care by a new model of 5 visits per pregnant woman seems not to affect maternal and perinatal outcomes. It could be implemented without major resistance from women and providers and may reduce cost (Villar et al 2001);
c. additional financial resources from the MOPH, MOF and SHI must not be used for the conventional clinical based services, but rather public health interventions, social mobilization and ensure any public policies such as transport, industrial and manufacturing should take into account health concern of the population

3. Sustain and accelerate the work of THPF through:
    a. increase level of the THPF revenue through the amendments of Health Promotion Foundation Act of by double from 2% to 5% of additional sin tax levied on tobacco and alcohol consumption;
    b. diversify the portfolio of the THPF to cover cost effective interventions as recommended in the DCP2 (Jamaison et al 2006)

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