# Achieving universal coverage in Thailand: what lessons do we learn?

A case study commissioned by the Health Systems Knowledge Network

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***Background to the Health Systems Knowledge Network***

The Health Systems Knowledge Network was appointed by the WHO Commission on the Social Determinants of Health from September 2005 to March 2007. It was made up of 14 policy-makers, academics and members of civil society from all around the world, each with his or her own area of expertise. The network engaged with other components of the Commission (see http://www.who.int/social_determinants/map/en) and also commissioned a number of systematic reviews and case studies (see www.wits.ac.za/chp/).

The Centre for Health Policy led the consortium appointed as the organisational hub of the network. The other consortium partners were EQUINET, a Southern and Eastern African network devoted to promoting health equity (www.equinetafrica.org), and the Health Policy Unit of the London School of Hygiene in the United Kingdom (www.lshtm.ac.uk/hpu). The Commission itself is a global strategic mechanism to improve equity in health and health care through action on the social of determinants of health at global, regional and country level.

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## ABSTRACT

This paper reviews the policy process of achieving universal coverage of health care (UC) in Thailand and critically assess how the reform achieve policy objectives of improving equity and efficiency of the care system with sustainable health care finance.

Evidence indicates that bureaucrat-led reformists played an important bridging role in bridging researchers and policy makers. While agenda setting was vested in the political leadership and commitment, the systems design and monitoring and evaluation were guided by researches; and successful policy implementation was based on the health systems capacity. Evidence played a strong foundation of the health sector reform.

Several lessons were drawn. (1) The strength of health care infrastructure and geographical distribution of well-functioning primary healthcare services in rural and urban areas serves as a strong basis for success in the smooth implementation of the UC policy. The availability of qualified human resources for health at district and provincial health facilities is also a key factor enabling the capacity of the health care system to provide essential health services to the whole population, and cope with the increasing demand for health care. (2) Financial feasibility of the country influenced by a long period of internal peace and the economic growth, and appropriate health financing arrangements of the UC scheme make a possibility to implement the UC policy, which foster better access to health care and effective financial risk protection through a comprehensive benefit package. (3) Relevant knowledge and evidence for policy formulation and implementation, and skills in the estimate of budget requirement was acquired through establishment of effective knowledge management mechanisms and sufficient long term investment in human resources in health system research and international linkages to keep abreast. Also, the national capacity to coordinate data producers (i.e. the National Statistical Office) and data users (i.e. MOPH), and ability of researchers to communicate with health care reformists and policy makers support the process of translating research into policy and practice , which has been widely known as a conception of "The triangle that moves the mountain". (4) The responsiveness to concerns of stakeholders and other influential partners who actively participated in the process of policy formulation and implementation.

# 1. BACKGROUND

By early 2002, Thailand achieved universal coverage (UC) of healthcare for the whole populations by introducing a tax-funded health insurance scheme, so called "the UC scheme", to approximately 47 million people who were not beneficiaries of the Civil Servant Medical Benefit scheme (CSMBS) and the Social Security scheme (SSS). It took almost three decades for Thailand to achieve UC since the instigation of a government pro-poor scheme in 1975, namely the social welfare for the poor or the Low Income Scheme. Apart from the Low Income Scheme, the successive government applied a "piece-meal" approach (Tangcharoensathien et al 2005) of gradual insurance coverage extension to the non-poor by using a public subsidized voluntary insurance scheme (Voluntary Health Card Project) in 1983[1] (Tangcharoensathien 1990; Srithamrongsawat 2002). In addition, The coverage of formal sector private employee under mandatory tripartite payroll tax of Social Health Insurance (SHI) gradually extended from a larger firm with more than 20 employees in 1990 to the smallest firms with more than 1 employee in 2002 (Walee-Ittikul 2002). Despite the attempts to expand health insurance coverage through several targeting approaches of the government, evidence indicates that approximately 30% of Thais were uninsured before implementation of the UC policy (Wibulpolprasert 2005).

## 1.1 Health insurance coverage prior to UC

Prior to UC, health insurance systems in Thailand were characterized by fragmentation, duplication, and inadequate insurance coverage. Despite the government efforts to extend health insurance coverage, more than two-third of Thais were uninsured in 1991, and reduced to more than half in 1996, and around 30% in 2001 (see Table 1). A good performed public health insurance scheme in terms of coverage extension was the social welfare scheme for the poor or the Low Income Scheme. This scheme launched in 1975 firstly aimed to provide health insurance coverage to the poor and the disadvantaged groups, and then extended its coverage to the elderly (aged more than 60 years), and children less than 12 years old (Pannarunothai 2002). However, evidence indicates poor performance in targeting of the scheme because a high percentage of non-poor households obtained the Low Income card. Also, a household survey in 2000 revealed that only 17% of the poor were covered by the Low Income Scheme, and only 35% of the Low Income card holders were genuinely poor.

The voluntary health card scheme also performed well, it increased population coverage from 1.4% in 1991 to 20.8% in 2001 (Srithamrongsawat 2002). The rapid increase in coverage between 1996 to 2001, was due to strong political support and 50% of the health insurance premium was subsidized by the government.

As a result of a policy on public sector downsizing, the proportion of the population covered by the Civil Servant Medical Benefit Scheme (CSMBS) shrunk from 15.3% in 1991 to 8.5% in 2001.

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[1] Health card project was initiated in 1983 with a focus on Community Health Insurance for MCH services managed by village committees. Later in 1984, MCH was extended to cover health care services for other family members. In 1991 the community based health insurance (CBHI) nature was transformed to a formal voluntary health insurance and finally in 1994, the government decided to 50% subsidize the scheme. The authors viewed CBHI as a transition towards UC, however its voluntary nature with adverse selection and financially non-viable could not be the major carrier towards UC.

The Social Security Scheme (SSS) had limited capacity to extend its coverage, as employment of the formal sector in Thailand was still small. The vast majority of labour engaged in the agriculture sector.

Despite the government efforts to extend health insurance coverage, almost 30% of population were still uninsured in 2001 and they had to shoulder their own medical bills.

**Table 1** Population covered by various health insurance schemes during 1991 - 2001

| **Health insurance schemes** | 1991 | 1996 | 2001 |
|---|---|---|---|
| Social Welfare for the poor, elderly and social disadvantaged groups (The Low Income Scheme) | 12.7 | 12.6 | 32.4 |
| Civil Servants Medical Benefit Scheme (CSMBS) | 15.3 | 10.2 | 8.5 |
| Social Security Scheme (SSS) | - | 5.6 | 7.2 |
| Voluntary Health Card | 1.4 | 15.3 | 20.8 |
| Private health insurance | 4.0 | 1.8 | 2.1 |
| **Total insured %** | **33.4** | **45.5** | **71.0** |
| **Total uninsured %** | **66.6** | **54.5** | **29.0** |

Sources: Thailand Health Profile 2001-2004 (Wibulpolprasert 2005) and the Health and Welfare Surveys in 1991, 1996, and 2001 (National Statistical Office, several years)

### 1.2 Objectives

The objectives of this paper are to describe and analyze the policy process of health sector reforms towards UC (including contents, policy actors, and contextual environment), and the major systems design which ensures equity, efficiency and long term financial sustainability. Achievements of the UC policy in terms of equity in health care finance, health service utilization, and public subsidies, are also explored. This is intended to generate lessons for other developing countries moving towards UC to design a more equitable health care system according to their own context and health system developments.

## 2. REFORM PROCESSES: CONTEXT, ACTORS AND CONTENTS

The authors are among key stakeholders who involved in the processes prior to and after the reform. They exposed to key historical events, engaged with key actors and dialogues, involve in the design of the UC systems, estimate capitation rates, setting up monitoring and evaluation but not on the down-stream implementation (Tangcharoensathien et al 2004, Towse et al 2004).

Given such context, the analysis of the reform processes was based on experiential evidence. However, it was verified by another major study by Pitayarangsarit (2004) who investigated the policy process of UC development. Pitayarangsarit suggested that -

> *… Thailand's democratization and 1997 Constitution created new actors in health policymaking processes, long been under control of bureaucrats and professionals.*
>
> *UC was advocated by a group of NGO who pushed through legislation and announced their campaign a few months before the January 2001 election, in parallel by a Thai-Rak-Thai party campaign, also announced in 2000.*
>
> *UC was picked up because it was seen as legitimate, feasible under the existing public health infrastructure and fiscal capacity, and also congruent with the reform intention of the political party. Once it became the government in 2001, an important factor in early policy formulation was the extent to which national research provided evidence to support the implementation of this policy.*
>
> *The research community was tightly-knit and concentrated in medical-related professions. One member of this policy community played an important role as a policy entrepreneur. This policy community continued to support evidence for debates in policy-making during both policy formulation and implementation.*
>
> *The implementation process was a top-down process; however, there were some spaces for street level bureaucrats to adapt decisions to fit their local context. Implementation started through the scaling up of coverage in four phases (within a year) under the execution of the Ministry of Public Health. This indicated a strong implementation capacity by the MOPH. Private providers were only minimally involved in these formulation and implementation phases.*
>
> *The UC policy in 2001-2 was characterised by clear policy goals, limited participation, strong institutional capacity, and very rapid implementation – all factors which anticipated success of the policy.*
>
> *However, the complex technical features of the policy and the rapid change in system reform were a brake on success. One of the implementation problems was the mobilization of human resources, especially where bureaucrats were resistant to change.*

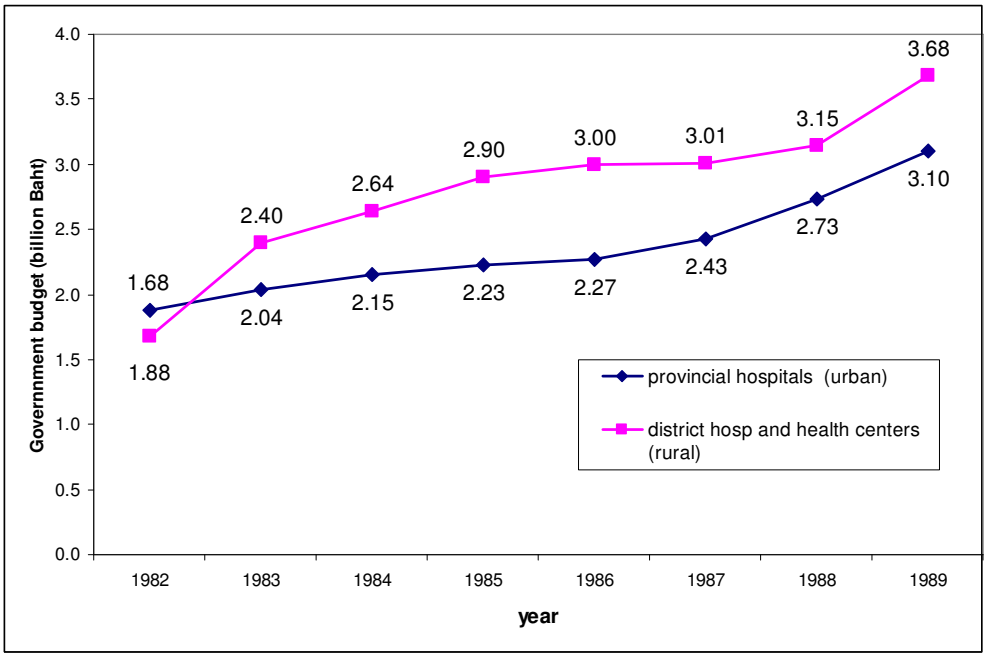
### 2.1 Health system context prior to the achievements of UC

There were large scale investments by the successive governments on public health service infrastructure at district and sub-district levels in the past 2 decades. There were explicit government pro-poor—pro rural policy to achieve full coverage of sub-district health centre and district hospitals in all sub-districts and all districts. It was not a rhetoric policy intention, but a real practice of adequate capital and operation budget allocation. Extension of infrastructure was fully supported by long term manpower production plan and actions. Ministry of Public Health Nursing College played the most important roles in professional nursing and midwifery production.

Evidence indicates that in 1982 to 1987, capital budgets for urban provincial hospitals were frozen, and shifted to the development of lower level rural district hospitals and health

centers. The year 1983 marked the first year that the budget to the rural health infrastructure was higher than that to the urban provincial infrastructure, see **Figure 1**. (Wibulpolprasert 2005).

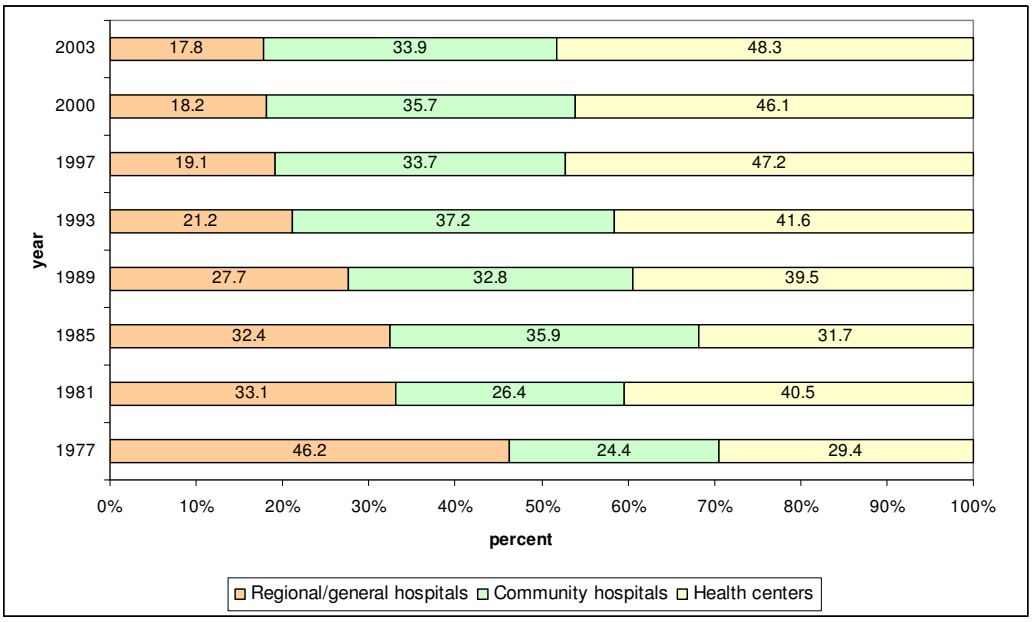
**Figure 1** Trend of government health budget allocation, 1982 – 1989, urban rural analysis




Source: Thailand Health Profile 2001-2004 (Wibulpolprasert 2005)

It must be noted that this was the period of low economic growth and recession due to twice oil crises. This indicated strong political determination toward health equity, by reallocation within the sector as it was not able to increase allocation to health sector due to fiscal constraints. This resulted in rapid growth of rural district hospitals and health centers with adequate budget and staffing. There was also evidences that the numbers of outpatient visit which used to be highest in the urban provincial hospitals and lowest at the rural health centers [a reverse triangle structure], had gradually shifted towards an upright triangle. The proportion of outpatient visits is now highest at the rural health centers and lowest at the urban provincial hospitals, see **Figure 2** (Wibulpolprasert 2005).

**Figure 2** The proportion of ambulatory service provided by levels of health facilities, 1977-2003




Source: modified from Thailand Health Profile 2001-2004 (Wibulpolprasert, 2005)

As a result of these infrastructure developments, there was an extensive geographical coverage of health services to the most periphery level. Today, a typical health centre and district hospital covers 5,000 and 50,000 populations. Health centre is staffed by a team of 3-5 nurses and paramedics while a 30 bed district hospital staffed by 3-4 general physicians, 30 nurses, 2-3 pharmacists, a dental doctor, including all other paramedics. There were acceptable number of qualify staff at health centres and district hospitals, to provide health services. This increasingly gained confidence and utilization by the rural population. In addition, there were integrations of public health programs (prevention, diseases control and health promotion) at all levels of care. There are no more vertical programs, such as TB, HIV and treatment of sexual transmitted diseases. In the last two decades, while MOPH focuses on public health infrastructure extension, private sector grew significantly in urban areas, provided services mostly to the middle classes and the better-off and played a significant role in providing services to SHI members under capitation contractual arrangement with the Social Security Office.

As all public health and medicine graduates are produced by publicly funded medical colleges, students are heavily subsidized by the government. In return, a mandatory rural service by new graduates, notably at district hospitals is enforced. It plays a significant role in the functioning of district hospitals. The program started with medical graduates in 1972 until now; it later extended to enforce other group including nurses, dentists and pharmacists.

## 2.2 Economic and political context

Internal peace and stabilities was observed when the arm conflicts with the communist guerillas came to an end in 1985. It freed up 12% of total national budget less to internal security, to re-allocate to social sector including health and education.

A rapid economic growth from mid 1980's to 1997 was observed. This was based on the successful export-led economy and boost of tourist industry. Rapid economic growth, double digits in some years allows the government to pay off most of the public debt. Public debt repayment was reduced from 25% to 5% in 1997 and slightly increased to 10% in 2006, due

to 1997 crisis. This has allowed another 15-20% of national budget to be reallocated to social sector including health. The Ministry of Public Health budget rose from around 4% of national budget in early and mid 1980s to almost 10% in 2007.

### 2.3 Institutional capacity in evidence generation and knowledge management

Melgaard (2004) describes a strong in country technical skill, research capacity to backup upstream reforms and guide effective policy formulation. The effective interface of research community and the policy makers as key inputs for the evidence based policy development, not on UC scheme design but other public health policies.

While UC agenda-setting was within the mandate of charismatic leadership of Prime Minister Thaksin Chinawatra of Thai Rak Thai (TRT) Party who won a landslide victory in the 6 January 2001 general election. On the policy formulation, evidence indicates that it is a bureaucrat led supported by reformists and researchers who continuously generated evidence and proposed policy options. For example, Health Systems Research Institutes (HSRI) supported the development of National Health Account, a tool for monitoring of financing flows since 1994, and researchers were able to maintain and continuously update (Tangcharoensathien, et al. 1999). The mapping of various health insurance schemes and their performance serves as a strong foundation for policy analysis towards reform (Tangcharoensathien et al 2003). The consistent cost escalations in CSMBS prompted HSRI to support provider payment reform from open ended fee for services to close end capitation and global budget model, but this attempt was failed due to resistance from the CSMBS beneficiaries for fear of the reduction of their entitlement.

Several actors involved in the capacity building in health systems and policy research. For example the USAID supported Health Care Financing Program in middle of 1980s. The Pew Foundation supports of International Heath Policy Program, Health Systems Research Institute and Thailand Research Fund who jointly supported Senior Research Scholar (SRS) program on health systems and policy research. The IHPP (Thailand) which emerged from SRS continuously build up capacity in health policy and health systems researches, through apprenticeship and long term fellowship. Strong research program and institutional collaborations between Health Planning Division of the MOPH, then SRS and IHPP with London School of Hygiene and Tropical Medicine Health Economic and Financing Program led by Professor Anne Mills since the early 1990s, resulted in improved capacity in health policy and systems research.

In additions, cumulative experiences of provider payment methods notably between fee for services (FFS) applied by CSMBS, and capitation contract model applied by SHI result in a consensus among reformists that the open-ended FFS is a "no go direction" for UC scheme.

The policy to promote Thailand as medical hub of Asia results in rapid influx of foreign patients and consequently internal brain-drain of well trained professionals from rural public to urban private hospitals. This had a negative impact on the implementation of the UC scheme.

### 2.4 Political actors

The UC was much talked about, but did not receive enough support to reach the political agenda, until the TRT party saw it as an opportunity to seize the idea for its political campaign in 6 January 2001 general election (Pitayarangsarit S 2005). Though there was a movement, led by Dr. Sanguan Nittayarumphong, to draft the first national health insurance bill since 1996. However, this attempt failed due to 1997 economic crisis and inadequate social movement.

The power was vested in the new Prime Minister and bureaucrats to influence the process of UC agenda setting, before and after the general election, which also provided the opportunity for these actors to pool their resources.

What really drew the public attention and their astounding support for the UC was the Prime Minister's charismatic leadership. Another situational factor contributing to its successful adoption was the economic crisis (described above), which the Party turned it into an opportunity to capitalize on the problems of healthcare services that were very much in need of reform.

Although much consultative discussions took place among the policy makers, ultimately the decision rested with the Party leader. The UC was chosen for three reasons: legitimacy, congruence with the Party's principles and needs by the general public (as it eases financial burden from medical bills), and feasibility. It was opportune to promote it as the solution to healthcare problems.

Another factor was the strong social marketing skill of the TRT leader. They created a motto of "30 Baht treat all disease" rather than "universal coverage of health care". This motto sticks to the memories of the people and receive very strong support since then.

On policy formulation, the decision to rapid scaling up to national coverage in a year came mainly from the strong leadership of the then permanent secretary, who is the current minister in 2007, Dr. Mongkol Na Songkhla. He would not like to see inequity among people living in different provinces to have different social benefits. Without his strong leadership, it may take 2-3 years to achieve a nation wide coverage.

The political actors in this part mainly focus on the upstream process in policy formulation. During the downstream policy execution phase many other actors also played important roles in shaping and reshaping policy implementation. These include the Provincial Hospital Group, the Rural Doctor Association, the NGO such as Consumer Group and the Private Hospital Association, and the constituencies from University Hospitals. They all play active roles in shaping the National Health Security Act through the function of the National Health Security Board.

### 2.5 Bridging role between researchers and political actors

We observed a close relationship between the reformists and politicians – who make tough decisions, between the reformists and researchers – who generate knowledge and evidence. Hence there was an evidence informed political decision through the bridging role of the reformists. The technical capacity to produce evidence is sound footings for reform, coupled with strong political will and overwhelming public supports. Thus there is an embed evidence into the political arena.

The research community was tightly-knitted and established long term trust and comradeship. Also it demonstrated a close relationship between leaders in the new government, the policy elites and the health systems and policy researchers. They all came from more or less the same generation of student activists who moved against the military government in mid 1970s. Many of them joint the Communist Party of Thailand and fought against the government during the mid 1970s to mid 1980s.

In addition, many of these student leaders become strong civic movement leaders which also contributed greatly in policy formulation and implementation. The policy elite such as Dr. Sanguan Nitayaramphong mobilized more than 50,000 people to sign in to support the Draft Bill on Universal Coverage and played important role in the parliamentarian special commission to consider the draft bill.

### 2.6 Reform contents

There are several policy statements that reflect the reform objectives. First, the improvement of health systems **efficiency** through a rational use of healthcare by level, beneficiaries start first with Primary Care while ensure proper referral to secondary and tertiary care. The UC Scheme applied capitation contract model, with its merits of cost containment as evident in the SHI (Mills et al 2000, Tangcharoensathien et al 1999). In addition, the scheme uses the essential drug list as the basis for pharmaceutical benefit.

Second, to ensure **equity** across schemes, through the standardization of benefit package, ensure equal access to care by beneficiaries covered by the three public insurance schemes, and convergence and standardization of level of resource use.

Third, to ensure good **governance** and minimize conflict of interest, this is done through purchaser provider split functions, while the NHSO serves as purchasers and scheme governance, the MOPH, other public and private sectors serve as healthcare providers and contractors of services. The National Health Security Broad has an inclusive participation by all partners, GO, NGO, and experts ensure concerns from all stakeholders were taken into account. The split of provision and purchasing function are not totally achieved, as the governance structure of NHSO was heavily involved by all healthcare provider sector, notably MOPH, other public hospitals including teaching, defence and private hospital association.

Fourth, to ensure **quality of care** through accreditation system and utilization reviews, this is done through the Hospital Accreditation Institute. It has been functioning for the last 6 years, though the accreditation of hospitals is still a voluntary basis. It is not a condition for contracting. The District Health System (DHS) is a typical contractor unit of primary care for the NHSO. Due to geographical monopoly of DHS, the sole provider in the district, it may require a new accreditation scheme, not a conventional hospital accreditation system. There is no way to apply quality as a condition for contract in such a circumstance. The NHSO needs a new mechanism of quality improvement for DHS.

### 2.7 Legislation of UC scheme

The government policy was implemented, at the same time, the legislative process started its processes at the end of 2001. By November 2002, the National Health Security Act was promulgated, by the House of Representative and finally endorsed by the Senates. The National Health Security Office (NHSO) was set up, as autonomous body with its own Governing Board.

The Board was chaired by Minister of Health and Dr Sanguan Nittayaramphong was the first Secretary General of the NHSO.

It is noted that the operation of UC Scheme was done prior to legislative processes. The legislative process was involved by all policy stakeholders through the parliamentary processes, including the civil society through their representatives in the House of Representatives and the Senate.

It should be noted that this is the first Law under the new constitution that involved more than 50,000 voters signed in to propose a draft act to be considered by the House of Representative and the Senate. This indicated a very strong civic movement in support of this Law.

As a result, in early 2002, Thailand had achieved universal coverage for the whole population, see Table 2. The financing source was dominated by public sources of finance, namely general tax (for CSMBS and UC scheme) and payroll tax for SHI.

**Table 2** Health insurance schemes when universal coverage was achieved, early 2002

| Scheme | Target Population | Coverage | Source of fund | Payment method |
|---|---|---|---|---|
| Civil Servant Medical Benefit Scheme Since 1963 | Government employee, retiree and dependants | 6 million, 10% | General tax, non contributory | Fee for service reimbursement model |
| Social Health Insurance Since 1990 | Private sector employee | 8 million, 13% | Payroll tax tripartite contribution | Capitation inclusive OP, IP |
| UC Scheme Since 2002 | Rest of population | 47 million, 74% | General tax, non contributory | Capitation OP and P&P. global budget and DRG for IP |

# 3. THE SYSTEMS DESIGN OF THE UC SCHEME

## 3.1 Harmonization of systems design with SHI

The same group of reformists and researchers had a hand-on involvement in the systems design of SHI in early 1990s. In addition, they involved in the subsequent evaluations of the SHI. Evidences from these researches provide invaluable lessons for the systems design for the UC scheme.

SHI is the predecessor of UC. For example, the contract model through contractual arrangement with competitive public and private provider contractor hospitals split the role of purchaser (Social Security Office) and health care provision (public and private). However, the contract model for UC scheme is only feasible in the context of comprehensive geographical coverage of MOPH healthcare infrastructure.

The Closed-ended provider payment method is one of the main features of UC Scheme in Thailand. Among a few developing countries, Thailand pioneers capitation payment method for SHI in 1991 and was applied to the UC scheme[2]. Not only capitation, there is an additional payment for accident and emergency (A&E) and high cost care were based on fee schedule and not allow extra-billing by healthcare providers.

Purchaser Provide split is another key feature of UC scheme design. The National Health Security Office serves as the healthcare purchasers, designs the benefit packages and payment methods, while the MOPH, other public and private medical institutions as major providers. Though, the governance structure of NHSO was heavily involved by healthcare providers that their concerns were taken into account.

Comprehensive coverage is influenced by historical experiences that the Low Income Scheme also provided a comprehensive service package including OP, IP. Prevention and Promotion were taken into the benefit package for the whole population, not only members of UC scheme.

In order to minimize barrier to access care, neither deductibles nor co payment at point of services were introduced. UC scheme has nominal pay of US$ 0.75 per visit or admission for UC members who are not previously Low Income Card holders.

## 3.2 Advanced features of UC Scheme

Learning from the systems design of SHI (Tangcharoensathien et al 1999, Mills et al 2000), UC applied a better and advance design than the SHI. This is described in Table 3. While SHI contracts with 100 bed public and private hospitals, UC scheme contracts with Primary Care Network, notably District Health Systems (including health centres and the district hospital). UC scheme thus advocate primary care contact and enforce referral line, which supports the use of close to client services and optimum use of tertiary care provincial hospitals.

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[2] In OECD countries capitations were applied in Italy (with some fees), the United Kingdom (with some fees and allowances for specific services), Austria (with fees for designated services), Denmark, Ireland (since 1989), the Netherlands and Sweden (from 1994) (Oxley et al 1994).

Due to geographical monopoly (whereas no established private providers who can provide a comprehensive range of services as stipulated by NHSO), and the majority of UC Scheme members resided in rural areas, there is no choice for NHSO to adopt DHS as primary contractor due to its proven capacity to delivery outpatient and inpatient services in the past years and easy access to care by beneficiaries.

While SHI employs capitation inclusive for OP and IP services, there is a tendency of dumping IP into OP and limited admission to save costs especially by private for profit contractor hospitals. The payment methods designed for UC scheme has a separate method, capitation for OP and global budge plus DRG for IP. The reformists do not apply a conventional DRG, due to empirical evidence of DRG creeping and false diagnosis. The global budget would prevent the cost escalation. A separate payment for IP does not send a wrong signal toward not admitting patients as clinical indicated.

Maternity and dental packages were historically separate out from the capitation in the SHI. There is no reason for UC scheme to follow this precedent. The dental and maternity packages were integrated into the curative services, and no administrative cost for claim reviews and reimbursement. However, although all DHS contractors had dentists, but the supply side capacity did not matched rapid increase in demand for dental services, long queue is a result.

Historically, the SHI law only covers the employee, excluding their non-working spouse and children. This precedent does not help extend coverage of SHI. UC scheme aims to everyone entitlement rather than individual entitlement of contributor of SHI.

**Table 3** Comparison of systems design between UC scheme and SHI

| | **UC Scheme** | **SHI** |
|---|---|---|
| **Service contractor** | Primary Care Network. Typical model: health centres and District hospital, as mostly rural population | 100 bed-hospital, as mostly urban population |
| **Referral** | Ensure better referral | No referral, covered within the contractor provider except some limited referral to other supra-contractor hosptials |
| **Payment method** | Capitation for OP, Global budget and case base payment (DRG) for IP. This is to prevent under-admission of inclusive capitation | Capitation inclusive of OP and IP |
| **Dental, maternity** | Integrated into curative package | Separate package: maternity: flat rate payment, dental: FFS and ceiling. Higher admin cost |
| **Coverage** | All family members, individual member card issued (not a family card) | Contributors only |

### 3.3 Main features of UC scheme

Bear in mind that, prior to UC era, there were gaps of inequity across different schemes, in favor of the CSMBS, and SHI and against the Low Income Scheme. In this reform, the reformists and researchers follow strictly the principle of harmonization across three public insurance schemes, as much as possible.

Benefit packages was standardization between UC Scheme and SHI[3], for example, curative services was referred to SHI package, it covers a comprehensive package, OP, IP, A&E, high cost care. Drug was referred to National List of Essential Drug. There were the 1999, 2002, 2004 versions of Essential Drug Lists. Personal preventive and promotion services were referred to the standard laid down by the MOPH[4]. A very minimum exclusion lists are for example, aesthetic surgical and curative services, chronic psychotic patients (as mental health is a national program and there was a universal access by all).

Initially the ARV for HIV patients was suspended, pending for more evidence of government fiscal capacity and cost effectiveness evidence. Note that the Prevention of Mother to Child Transmission was covered in the package, as it was the government policy prior to UC scheme. Note also that by 2003 universal ART by all PHA was adopted by the government. Renal Replacement Therapy for End Stage Renal Diseases (ESDR) was still excluded from the package, as there is a long term cost implications and poor health outcome.

In practice, there is no prior evidence on cost effectiveness on the selection of benefit packages and exclusion list, it is based on the principle not to create gap across schemes rather than deliberate standardization or harmonization[5].

Registration with preferred public or private primary contractor is a requirement of contract model. Typically the primary contractor is a District Health Systems in rural areas (District hospital and 10 to 12 health centres in the district). In total there were 900 CUP throughout the country (725 rural district and 95 urban provincial and around 80 other hospitals), each responsible for around 10,000 to 150,000 population; and average of around 50,000 population.
Beneficiaries are entitled to free care at the registered contractor, whereas 30 Baht (0.7 USD) co pay for an OP or an admission, with an exemption for the previous Low Income Card Holders as well as the elderly, the children under 12, the veterans, the priest and monks, and the village leaders and health volunteers. The 30 co payment was abolished after the new government came into power in October 2006. All beneficiaries (CSMBS, SHI and UC scheme) are entitled to free personal prevention promotion services.

However, bypassing the registered primary contractor is liable to pay in full charges. Beneficiaries have freedom to access to any healthcare providers, if not registered, at their own cost. The primary contractor ensures proper referral to upper level of care if needed. It serves as a fund holding for OP services, as it pays for referral OP services

Provider payment: capitation for outpatient services was adopted. Prevention and health promotion (P&P) services were paid based on a capitation plus some fee for services such as pap smears. Accient and emergency outside registered provider is paid on a fee schedule set and centrally managed by NHSO. IP services are paid by global budget + DRG. Currently, the global budget was set at provincial level, but in the future the global budget would be set at national level.

IHPP estimates capitation rate based on actuarial estimations for the government for Fiscal Year 2001 to 2005. The first capitation rate was internal peer reviewed by national partners, and steering committee, and external peer reviewed by ILO, See table 4.

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[3] Although much effort was given, some discrepancy remains such as access to renal replacement therapy.
[4] Prevention and health promotion is neither covered by SHI nor CSMBS. The NHSO submit budget for prevention and promotion for the whole population.
[5] A few years later, we observed competition by SHI to increase its benefit packages. We acknowledged the facts that the three schemes are competing with each other not harmonizing.

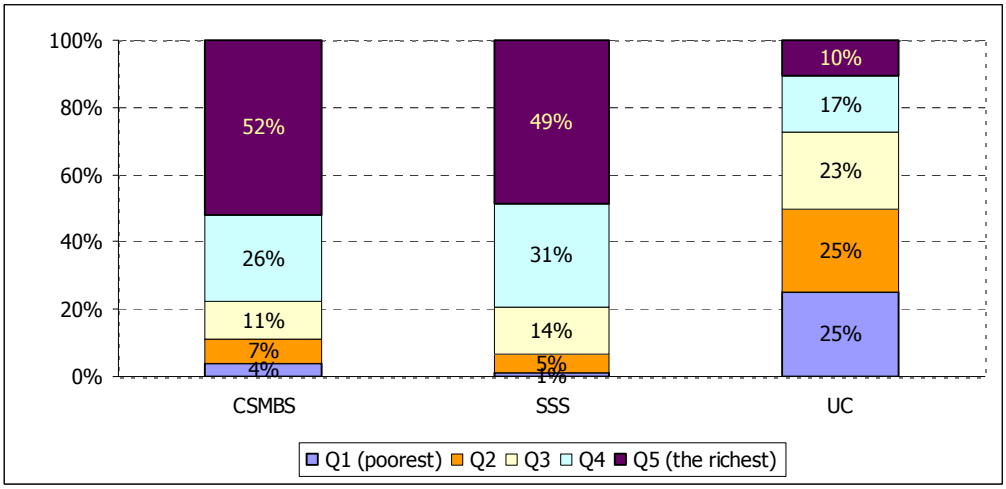
**Table 4** Capitation rate and its components: Baht per capita, 2002-2005

| | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|
| Outpatient | 574 | 574 | 488 | 533 |
| Inpatient | 303 | 303 | 418 | 435 |
| Prevention and health promotion | 175 | 175 | 206 | 210 |
| Accident and Emergency | 25 | 25 | 20 | 25 |
| High cost services | 32 | 32 | 66 | 99 |
| Pre-hospital care | - | 10 | 10 | 10 |
| Capital replacement | 93 | 83 | 85 | 77 |
| Adjusted for remote areas | - | - | 10 | 7 |
| No fault liability payment | - | - | 5 | 0 |
| **Capitation Baht** | **1202** | **1202** | **1309** | **1396** |
| **USD** | **30** | **30** | **33** | **35** |

# 4. ACHIEVEMENTS OF UC SCHEME 2002-2005

## 4.1 Population coverage

**Figure 3** Scheme beneficiaries by income quintiles, 2004



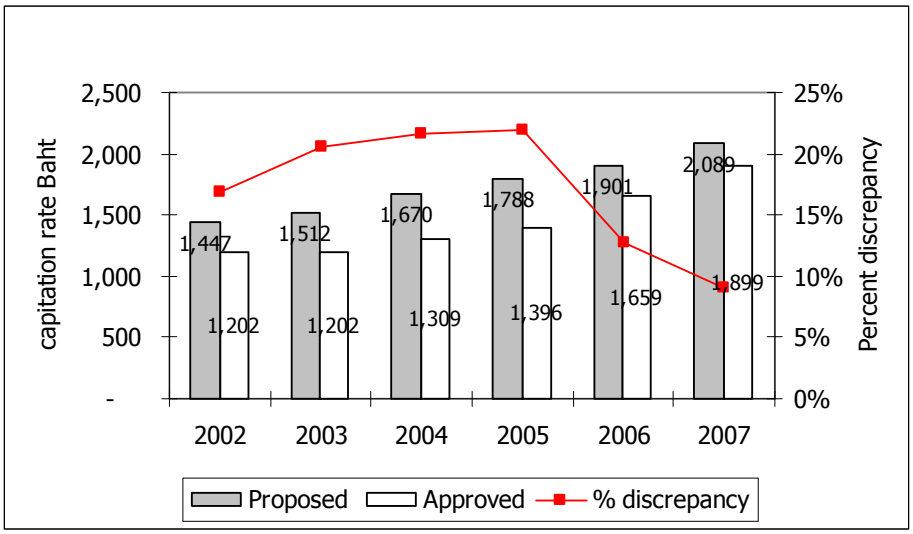

Source: NSO Health and Welfare Survey 2004

Evidence from Health and Welfare Survey conducted National Statistical Office indicated that the beneficiaries of the UC Scheme are mostly the poor, 25% belong to the poorest quintiles, 25% to the poor quintiles. See Figure 3.

In contrast, CSMBS covers mostly the rich group; 52% belong to the richest quintile. Among SHI members, 49% belong to the richest quintiles. This confirm the findings by Suraratdecha et al (2005)

## 4.2 Financing of the UC scheme

**Figure 4** Discrepancy of the proposed & approved capitation rate FY2006-2002



Capitation rate was estimated based on utilization rate and unit cost of services at different level of institutional care. See Figure 4. Due to fiscal constraint, it results in discrepancy between the proposed and approved figures. At hospital levels, the fiscal constraint is cross subsidized by other schemes such as CSMBS and the balances from the past years of operations. The capitation in 2007 was based on actual utilization data from routine report hold by NHSO. Favourable rates in 2006 and 2007 are a result of pressure from healthcare providers.

### 4.3 Utilization and profiles

**Table 5** Utilization by UC members

| Level of care | OP million visits | | | IP million admission | | |
|---|---|---|---|---|---|---|
| | 2001 | 2003 | 2004 | 2001 | 2003 | 2004 |
| Primary Care Unit | 29.7 | 43.7 | 63.8 | | | |
| District hosp. | 19 | 36.7 | 46.2 | 1.1 | 2.1 | 2.2 |
| Provincial Hosp. | 24.5 | 14.8 | 20.1 | 2.1 | 1.4 | 1.8 |
| Annual changes | | | | | | |
| Primary Care Unit | | 47% | 46% | | | |
| District hosp. | | 93% | 26% | | 91% | 5% |
| Provincial Hosp. | | -40% | 36% | | -33% | 29% |

Source: NSO HWS2001, 2003 and 2004

Evidence from NSO HWS, prior to UC scheme in 2001, and after the scheme in 2003 and 2004 indicated a significant increase in utilization of OP and IP and the significant reorientation of service utilization by beneficiaries towards the use of services at district health systems (DHS), see Table 5.

Primary care unit and district hospitals are the major provider especially ambulatory care. This is a good message. There was a major shift of utilization from tertiary provincial hospital to primary care unit and district hospital both outpatient and inpatient, though the shifting was observed since the extension of primary care in 1980s. The design of the reform is very important for efficiency improvement, by fostering the use of primary care.

In view of under-funding and mis-allocation in favor the richer provinces, as it maintains status quo the salary portion in the capitation, and significant increase in utilization among UC members, there is a danger of financial collapse among some public hospitals.

### 4.4 Who benefits from public subsidies?

Benefit Incidence Analysis was conducted in order to compare pre-UC 2001 and post-UC 2004 using NSO HWS 2001 and 2004 (Limwattananon et al 2005)

For OP care, in the post UC 2004 phase, the pro-poor subsidy was very pronounced at DHS. The Concentration Index was - 0.3326 and - 0.2921 for Health Centre and District Hospital respectively. It is less progressive at provincial hospitals (PH) as the CI is - 0.1496.

For IP care, there is more progressive in favour of the poor at DH, the CI is - 0.3130 in 2001 and - 0.2666 in 2004. However, we observe a weaker progressive in favour of the poor at PH, the CI is - 0.1104 in 2001 and - 0.1221 in 2004. In conclusions, the pro-poor subsidy were strongest for DHS. DHS plays a key role in fostering the pro-poor nature of public subsidy; as it is a Close to client services and better accessed by the rural poor population. A

longer time series prior to UC for the estimate of benefit incidence is not possible due to limitation of NSO household survey data.

### 4.5 Impact of UC: Catastrophic illnesses, impoverishment

An assessment of the incidence of catastrophic illness and impoverishment due to medical bills was conducted by the analysis of national representative household survey dataset from NSO SES 2000 (24,747 households for pre-UC), compared with SES 2002 (34,785 household) and 2004 (34,843 households) as post-UC phase (Limwattananon et al 2005)

An exciting finding indicates that the incidence of catastrophic health expenditure (as measured by more than 10% of total household consumption expenditure) has reduced from 5.4% in pre-UC 2000 to 3.3-2.8% in post-UC 2002-2004.

On impoverishment, the increase in the poverty headcounts due to OOP payments dropped from 2.1% in pre-UC to 0.8-0.5% in post-UC phases.

In conclusions, the reduction in the catastrophe and impoverishment due to OOP is evident after the UC reform. As the UC scheme provides a comprehensive coverage of health care (OP, IP, A&E, dental services and high cost care) with a very small nominal fee at point of service.

### 4.6 Why general-tax-financed UC Scheme?

Financing UC scheme by general tax revenue was a pragmatic decision, as it is technically not feasible to achieve universal coverage rapidly with the application of contributory scheme. Thai Rak Thai needs to scale up UC immediately, as part of the social obligations during the election campaigns. The UC members, largely engaged in agricultural informal sector do not have regular cash income, for annual premium payment. Premium collection is difficult, enforcement of contribution by members are not possible.

Another piece of evidence confirms the equitable nature of the applications of general tax revenue. An EU funded EQUITAP study (O'Donnell et al 2005) estimates a Concentration Index of various sources of healthcare finance in Thailand for 2002, using NSO SES data and National Health Account

**Table 6** Progressivity of various sources of financing healthcare

| | Concentration Index | Weight |
|---|---|---|
| Direct tax | 0.9057 | 0.1868 |
| Indirect tax | 0.5776 | 0.3155 |
| Social insurance | 0.5760 | 0.0582 |
| Private insurance | 0.3995 | 0.0668 |
| Direct payments | 0.4864 | 0.3728 |
| Total Health Financing | 0.5929 | |
| General Tax | 0.6996 | |

CI, an index of the distribution of payments, ranges (-1 to 1), a positive (negative) value indicates the rich (poor) contributes a larger share than the poor (rich), a value of zero is everyone pays the same irrespective of ability to pay

Based on macro financing using the National Health Account, and micro-level household survey by NSO SES; empirical evidence indicates the total health financing in Thailand is quite progressive, the CI equals to 0.5929. See Table 6.

Direct tax is the most progressive source of financing healthcare, with the largest CI of 0.9057. Indirect tax and social insurance contribution are similarly less progressive than the direct tax, the CI is 0.57. Social health insurance contribution should be more progress, but it cannot achieve high progressivity level, as the maximum payroll was constraint at 5 times of the minimum wage. The CI for general tax (direct and indirect), 0.6996, estimated by the authors is quite satisfactory, as it is more progressive than the income related SHI contribution.

# 5. CONCLUSION AND LESSONS LEARNED

## 5.1 Conclusions

Several key policy entrepreneurs, so called "reformists" play an important bridging role between researchers and policy decision. An evidence based decision plays an important role in policy formulation of UC, while agenda setting is vested in the political leadership and commitment. Evidence plays a strong foundation of reform. In addition, the links between reformists and civil society are essential to the success of both upstream and downstream process of the UC.

This confirms the theory of "triangle that moves the mountain" proposed by Professor Prawase Wasi (2000). To overcome difficulties and achieve successful reform, one requires three synergistic and interlinked powers, namely wisdom and evidence generated from researches, civil society movement and public supports, and involvement by politicians who make decisions. In this case, the policy entrepreneurs play a bridging role among the three forces.

Concentration index of financial contribution reflects a pro-poor nature, the rich contributes progressively to their income. The general tax revenue is more progressive than SHI contribution, as it constrains contribution of the high income earners using a ceiling of 5 times of minimum wages and has not been adjusted since the SHI inception in 1991. The annual increase of the minimum wage results in decreasing progressiveness of SHI contributions. This calls for policy attention to raise the cap.

It proves that Thai reformists and researchers do not believe in the ideology of achieving UC through membership contributions especially the very large size of informal self-employed sector. Law enforcement of compliance among informal sector and premium collection are equally difficult and expensive. The post-ante (O'Donnell et al 2005) concludes that financing UC scheme through general tax is more progressive than social insurance contributions. This evidence confirms the pragmatic approach of achieving UC through general tax financing in Thailand. Evidence on equity of several sources of financing healthcare guides decision in other country settings, but fiscal space should be investigated thoroughly.

Benefit Incidence Analysis of the public subsidies also indicates post-UC pro-poor outcome. This sends good news, not only it counter-argues the criticisms of UC scheme subsidising the rich, it fosters the legitimacy of adequate funding to the UC scheme. Pro-poor budget subsidies are the outcome of the scheme design advocating the role of DHS as contractor provider network, whereby the vast majority of the UC members who are rural population have easy access with little indirect costs.

## 5.2 Lessons learned

Evidences indicated strong political commitment towards pro-poor and pro-rural development since early 1980s. This resulted in shifting health budget from urban to scale up health facilities in rural areas. This resulted in well functioning and extensive geographical coverage of district health system, and thus increases utilization in rural facilities. For example, more than 98% coverage of anti-natal care (which facilitates rapid nation-wide scale up of Prevention of Mother to Child Transmission of HIV Program within a year in 2001), high contraceptive prevalence rate, very high immunization coverage of 98% of DTP3.

A functioning of district health system is not possible without a mandatory rural service by new graduates (medical, nurse, dental, pharmacists) which as been introduced in 1972. All

new graduates are liable to serve three years in rural health services, notably in DHS. In addition, there was a clear budget line in support of the functioning of DHS prior to UC. DHS serves as a hub in translating policy into actual implementation.

Without extensive DHS, universal coverage would be a rhetoric statement, which only ensures citizen rights on the paper of which the poor cannot access to and use services. It would only enjoy by the minority urban elites.

Well developed private hospital sector provides alternate choices for the urban elites to access by their own out of pocket payment, and not competing the poor for the public resources and services. Though problems of internal brain drain of low pay high work load public doctors are remaining a major problem especially in the economic boom.

Health systems capacity and its resilience are well demonstrated by the rapid nation-wide scale-up of UC within a year. The credit goes to staffs in the Provincial Health Offices, District Health Offices and District Hospitals throughout the country.

Lessons from various health insurance schemes were drawn. SHI is the predecessor for contract model for UC Scheme, the CSMBS cost escalation due to fee for service reimbursement model prompts to a 'no go' directions for UC scheme, the voluntary health card has inherited weakness of its adverse selection (whereby the healthy opts out and the sick join into the Scheme) and non-viable financially due to limited risk pooling, the scheme provides invaluable experiences in fund management by public health workers. The social welfare scheme for the low income indicates that mean tested targeting the poor can not precisely differentiate the poor and non poor. Having discerned carefully, the fragmented health insurance schemes by targeting can not reach universality.

Pragmatism is applied, as it is extremely difficult to achieve universal coverage by contributory scheme, especially among informal sector. There is no effective mechanism for contribution collection and enforcement.

Learning from SHI, UC has taken further advanced steps, for example, efficiency improvement through the advocates of primary care contractor and ensure proper referral and better use of primary care. Cost containment is achieved through the application of capitation and global budget with DRG.

The contract model with DHS, advocates the role of primary health care and foster the rational use of low cost integrated services, while ensuring proper referral. DHS is a close to client setting and easy accessed by the rural population. DHS is the major hub of fostering the pro-poor subsidies.

A recent study (Tangcharoensathien et al 2006) indicates availability of extensive national representative dataset that facilitate health equity monitoring. The NSO databases have the maximum capacity in the analysis of health equity. Health Welfare Survey and Socio-economic Survey are very comprehensive in term of a wide range of health dimensions, from health care use and payments to health status risks. In addition, variations in these health dimensions can be analysed across subgroups with respect to social determinants of inequity such as geographic, demographic, social, economic, and health insurance characteristics of the population.

One of the weaknesses of the NSO database is a lack of some aspects of equity in health, such as infant mortality, child mortality, maternal mortality by socio-economic stratifications. However, this major problem has been solved by the close collaboration between NSO and the International Heath Policy Program of the MOPH to insert a comprehensive set of social determinants in the SPC. By end of 2007, NSO should be able to produce findings of differentials in health status.

In addition, there is a need to build up an institutional partnership between statistics constituency, who generate information, and health constituency who use information for their policy making, equity monitoring in order to insert social determinants in either national or sub-national health surveys. In the past decade, a genuine partnership was built up between NSO and MOPH. Countries can draw lesson from the experiences how Thailand develops such richness data for health equity monitoring.

## 6. FUTURE CHALLENGES

Long term 20 year financial forecast indicates (ILO 2004, Patcharanarumol et al 2006) indicates that by 2020, the Total Health Expenditure (THE) would be 3.88% of GDP and resource needs are within government fiscal capacity. In addition, recent policy dialogues are in favour of sin tax (tobacco and alcohol) to finance UC scheme.

Take into account the increasing prevalence of chronic non-communicable diseases in Thailand the poor performance in term of effective coverage of essential interventions, efforts should be made to improve the early detection, increase treatment coverage, and effective control of for example, diabetic, hypertension, hypercholesterolemia and obesity. Effective prevention of injuries is currently the government policy.

While capitation contains cost in long term, the downside is low quality of care. There is a need for NHSO to closely monitor clinical outcome especially among the chronic non-communicable diseases. The current consumer satisfaction survey through annual poll monitor is good but not adequate to introduce course of actions, as consumers do not understand the complexity of clinical outcome.

Renal Replacement Therapy (RRT) for chronic kidney disease patients is not covered by UC Scheme, while SHI and CSMBS cover fully. RRT results in catastrophic health expenditure by UC households. In such context, evidence based policy decision is vital as it has a huge long term financial implications to the government.

The cost per life year saved (Teerawatananon et al 2006) for peritoneal and hemo-dialysis are estimated at US$ **10,170** and **10,490** respectively. When compared to the cost per life year saved (Lertiendumrong et al 2005) by Antiretroviral Therapy, US$ **590**, RRT is 18 times as expensive as the current national universal ART program.

Compared to Thailand Gross National Income (GNI) of US$ **2,540 per capita** (WDR 2006), the cost per life year saved for RRT is 4 times of GNI per capita, which is beyond the benchmark of not more than 3 time of GNI as recommended by the Commission of Macro-Economic and Health, and not more than 1 times of GNI as recommended by UK NHS. In term of cost effectiveness, RRT is not recommended, however, we recommends the government to include RRT in the UC Scheme package, on the ground of catastrophic expenditure to the households, as well as ethical considerations of not extend RRT to UC members.

In such case, universal access to RRT consumer huge proportion of UC resources, it is not possible for the government to provide RRT for all ESRD patients, rationing is unavoidable. A group of researcher is working with its partners to conduct public consultation of their perspective of selective access to RRT and rationing.

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