





# Universal Health Coverage

Case studies from Thailand



# Universal Health Coverage:

## Case studies from Thailand

- Supported by:** Prince Mahidol Award Foundation  
under the Royal Patronage  
Ministry of Public Health  
World Health Organization  
Mahidol University  
Health Systems Research Institute (HSRI)
- Published by:** Health Systems Research Institute (HSRI)
- Authors:**
1. Achara Suksamran, PhD, RN
  2. Kamolrat Turner, PhD, RN
  3. Laiad Jamjan, EdD, RN
  4. Orarat Wangpradit, PhD
  5. Panarut Wisawatapnimit, PhD, RN
  6. Peranan Jerayingmongkol, PhD, RN
  7. Pornruedee Nitirat, PhD, RN
  8. Sukjai Charoensuk, PhD, RN
  9. Sunanta Thongpat, PhD, RN
  10. Supaporn Wannasuntad, PhD, RN
  11. Thongsouy Sitanon, PhD, RN
  12. Wanida Sriworakul, MSc, RN
  13. Wilaiporn Khamwong, PhD, RN
  14. Yupaporn Pongsing, PhD, RN
- Reviewers:** Pongpisut Jongudomsuk, MD  
Paul Turner, PhD  
Sorachai Jamniandamrongkarn, BSc (Pharm)
- Editor:** Apiradee Treerutkuarkul
- Published:** 2012
- Printed by:** Sahamitr Printing & Publishing Co.,Ltd.  
Bang Yai, Nonthaburi 11140, Thailand  
Tel. 662 903 8257-9
- ISBN** 978-974-299-174-6

## Table of Contents

1. Development of Universal Health Coverage in Thailand : an overview	5
2. Connecting and Managing Health Insurance Schemes through ICT System	21
3. Ayutthaya Integrated Health Care System: The Initiation of Universal Coverage in Thailand	31
4. Universal Health Coverage for Decentralization and Humanistic Care: Lam Sonthi Model	41
5. Universal Health Coverage for High-Cost, Complex Diseases : The Challenge of University Hospitals and Excellence Centers	51
- The Faculty of Medicine Ramathibodi Hospital, Mahidol University : Life-Saving Mission vs. Budget Constraint	53
- The Central Chest Institute of Thailand: Excellence Center that the Poor Can Access	62
6. Health Network System : A Success Story of Public Private Partnership at Bhumibol Adulyadej Hospital	71
7. Private Health Sector: Involvement is better than exclusion	87
8. Engaging Community Organizations in the Management of Universal Health Care Scheme: Tambon Muang Mai	99





# Development of Universal Health Coverage in Thailand : an overview



# Development of Universal Health Coverage in Thailand: an overview <sup>1</sup>

## I. BACKGROUND

By early 2002, Thailand had achieved universal coverage (UC) of healthcare for the whole populations. It is indeed a long march towards UC. It took 27 years for Thailand to achieve UC since the first government pro-poor scheme in 1975, namely the social welfare for the poor (Low Income Scheme) in 1975. Successive government had applied “piece-meal” approach of gradual insurance coverage extension to the non-poor using public subsidize voluntary insurance scheme (Health Card Project) in 1983. The coverage of formal sector private employee under mandatory tripartite payroll tax financed Social Security Scheme (SSS) had gradually extended from larger (more than 20 employees) in 1990 to the smallest firms (more than 1 employee) in 2002.

### Insurance coverage prior to UC

Prior to UC, there were fragmented health insurance scheme. In table 1, more than 2/3 were uninsured in 1991, and reduced to more than half in 1996, and around 30% in 2001 despite the fact of government efforts on coverage extension. The best performed

---

<sup>1</sup> Adapted from “Achieving universal coverage in Thailand: what lessons do we learn?”, the work carried out by Viroj Tangcharoensathien, Phusit Prakongsai, Supon Limwattananon, Walaiporn Patcharanarumol, Pongpisut Jongudomsuk, 2006.





scheme in term coverage extension is the social welfare scheme for the poor, which later extend to cover the elderly (more than 60 years old), and children less than 12 years old. Mean testing in targeting the poor demonstrates

The voluntary health card scheme also performed well, it increased population coverage from 1.4% in 1991 to 20.8% in 2001, the rapid increase in coverage between 1996 to 2001 is due to the 50% government subsidy of the premium to households. As a result of downsizing the government, the population coverage of CSMBS actually shrink, from 15.3% in 1991 to 8.5% in 2001. SHI had limited capacity to extend its coverage, as the formal employment sector was still small. The vast majority of labour engaged in agriculture sector.

Despite the government efforts of coverage extension, in 2001, there are almost 30% of population uninsured and shouldered their own medical bills.

**Table 1** Population covered by various insurance

## II. REFORM PROCESSES :

Insurance Schemes	1991	1996	2001
Social Welfare for the poor, elderly and social disadvantage groups	12.7	12.6	32.4
Civil Servants Medical Benefit Scheme	15.3	10.2	8.5
Social Security Scheme	-	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: NSO Health and Welfare Surveys



## CONTEXT, ACTORS AND CONTENTS

We had eye evidence and hand-on experiences in the processes prior to and after the reforms. This includes the exposure in key historical events, contextual environment, engaged with key actors and dialogues, involved in the design of down-stream implementation, and development of information systems for monitoring progress and achievement of UC Scheme.

### 1. Health systems context prior to the achievement 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.

As a result, there was an extensive geographical coverage of health services to the most periphery level. 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 two last 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. Economic context

Note the 1997 Asian economic crisis was triggered by Thailand. However, Thailand managed to translate crisis into opportunity. The crisis is a catalyst for political reform guiding by the newly promulgated Constitution, which focuses on good corporate and public governance as priority. A check and balance mechanism is in the Constitution.

UC was introduced immediate after the economy indicated an early recovery in 2001. The UC scheme cannot afford an expensive scheme like the Civil Service Medical Benefit Scheme (CSMBS) which adopted a fee for service reimbursement model and is currently facing huge cost escalation and scheme inefficiency.

## 3. Institutional capacity in evidence generation and knowledge management

Melgaard B (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. The mapping of various health insurance schemes and their performance serves as a strong foundation for policy analysis towards reform. 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.

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 FFS is a “no go direction” for UC scheme.

#### **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.

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.

## **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 based 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.

## **6. Strategic approach towards UC**

There was an extensive debate on the three approaches of achieving UC. These are conservative, progressive and big bang approaches.

Conservative is status quo, through maintaining fragmented insurance scheme, and inequity. For example the expansion of SHI coverage to smallest establishments of more than 1 workers, and

extend population coverage to non-working spouse and children; effective and coverage extension of Social Welfare Scheme to the real poor and the needy; and expansion of voluntary Health Card Scheme. There is no legislation requirement, as this is an administrative instruments, however it will never reach UC.

Progressive approach was discussed among the reformists and researchers, through a functional integration<sup>2</sup> of the three major public schemes. This allows dual system for (1) formal sector group and (2) the rest of population. This requires legislation for the merger of CSMBS and SSS. This would achieve UC quickly without much resistance. For example, the pool management of CSMBS (7 million beneficiaries) and SSS (7m. beneficiaries), either managed by SSO or CGD, and extension to cover dependents (spouse and children). For the rest of the population (the informal sector employee and dependents and the poor) would be managed by a new established agency (now the National Health Security Office-NHSO). In addition, both schemes would share similar core package and provider payment methods. This de facto become a virtual single scheme, if the harmonization can be achieved in due course.

The big-bang approach is a major change, through the physical integration into a single Fund for the whole population managed by NHSO. It requires legislation and achieves UC instantaneously, but with a foreseeable strong resistance by CSMBS and SSS. As a single fund, it achieves perfect equity across the whole population.

Pro and con of the three strategies was discussed among reformists. Finally the policy decisions and subsequent legislative processes were made to discard conservative approach, and adopt progressive functional integration rather than a big-bang. The functional integra-

---

<sup>2</sup> Functional integration means to maintain the institutional identity of SSO who handles SHI and Comptroller General Department who handles CSMBS, but share the similar benefit package, level of public budget subsidies, similar provider payment methods.



tion includes the convergence of benefit package (UC applies SSS benefit packages, though CSMBS is the most affluent package), level of payment across the three schemes. In the long term future, one provision in the National Health Security Act allows physical merger of the three schemes, if the functional merger proves successful and all concerned parties agree to do so.

As a result, by early 2002 there were three public insurance schemes. The CSMBS covers 10% of population. The SSS covers 13% of population. The UC Scheme covers rest of population, 74% in total, though 4% are still uninsured. See Table 2.

**Table 2** Health insurance schemes, 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 Security Scheme 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

Payment of healthcare providers is dominated by close-end method in SSS and UC Scheme. Except CSMBS applies fee for service reimbursement model.

## 7. 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 SSS.

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 health-care 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

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.

## **8. 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.

### III. THE SYSTEMS DESIGN OF THE UC SCHEME

#### 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 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.

SSS 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 feature of UC Scheme in Thailand. Among a few developing countries, Thailand pioneers capitation payment method for SSS and UC scheme. Not only capitation, there is an additional payment for accident and emergency (A&E) based on fee scheme, payment for

high cost care based on fee schedule.

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

Comprehensive coverage is influenced by historical experiences that the Low Income Scheme also provided a comprehensive service package including OP, IP, Prevention and Promotion. 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.

## **2. Advanced features of UC Scheme**

Learning from the systems design of SSS, UC applied a better and advance design than the SSS. This is described in Table 3. While SSS 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.

While SSS employs capitation inclusive for OP and IP services, there is a tendency of dumping IP into OP and limited admission to general margin 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 SSS. There is no point for UC scheme to follow this precedent. The dental and maternity packages were integrated into the curative services.

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

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

	UC Scheme	SSS
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 hospitals
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

individual entitlement of contributor of SSS.

### 3. Main features of UC scheme

Bear in mind that, prior to UC era, there were gaps of inequity across different scheme, in favour of the CSMBS, and SSS and against the Low Income Scheme. In this reform, the reformists and researchers follow

strictly the principle of harmonization across three public insurance scheme, as much as possible.

- Benefit packages
  - Standardization of benefit packages between UC and SHI
    - Curative services - reference to SSS package - it is a comprehensive package, OP, IP, A&E, high cost care,
    - Drug - reference to National List of Essential Drug. There were the 1999, 2002, 2004 versions of Essential Drug Lists.
    - Personal preventive & promotion services according to the standard laid down by the MOPH.
  - The exclusion lists
    - This was set at minimum: for example, 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 also excluded from the package, as there is a long term cost implications and poor health outcome.
  - There is a need to build up capacity on Health Technology Assessment (HTA) in Thailand in order to generate evidence on Cost Effectiveness of new interventions as well as long term budget impact analysis. HTA will guide policy decision on adopting of new technologies.
- Registration with preferred public or private CUP (Contract Unit of Primary Care)
  - The requirement of contract model is registration with a provider. In the UC scheme, the typical CUP is a District Health Systems in rural areas (District hospital + 5-10 Health centres)



- There are the total 700 CUP throughout the country, each responsible for around 70,000 population
  - Beneficiary gets free care at the registered CUP,
    - 30 Baht (0.7 USD) co pay for an OP or an admission, with an exemption for the previous Low Income Card Holders.
    - Free personal prevention promotion services
  - Bypassing the registered CUP is liable to pay in full charges. Beneficiaries have freedom to access to any healthcare providers, if not registered, at their own cost.
  - CUP ensures proper referral to upper level of care if needed, then the CUP serves as a fund holding for OP services, the CUP pays for referral OP services
- Provider payment
    - Capitation for outpatient services
    - Prevention and health promotion (P&P) services is paid based on a capitation
    - A&E outside registered provider is paid on a fee schedule set and centrally managed by NHSO
    - IP services are paid by global budget + DRG at provincial level. Currently, the global budget was set at provincial level, but in the future the global budget would be set at national level.



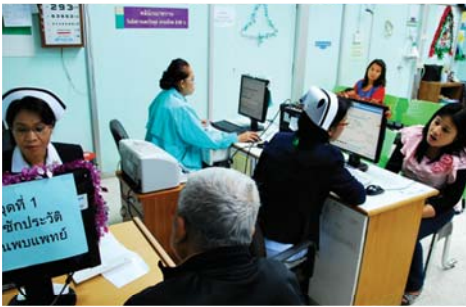
**Table 4** Capitation rate and its components: Baht per capita, 2002-2011

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Outpatient	47.8%	47.8%	37.6%	38.8%	38.7%	33.1%	27.4%	31.9%	34.7%	35.8%
Inpatient	25.1%	25.1%	38.1%	39.8%	36.5%	42.3%	49.6%	45.6%	44.0%	41.9%
High cost	2.7%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Accident and emergency	2.1%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Denture	0.0%	0.0%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%
Prevention and promotion	14.6%	14.6%	15.8%	15.0%	13.1%	12.5%	11.5%	11.4%	10.9%	10.4%
Capital replacement	6.9%	6.9%	7.3%	5.5%	7.5%	7.2%	6.6%	6.5%	6.0%	5.5%
Emergency medical services	0.8%	0.8%	0.8%	0.7%	0.6%	0.5%	0.5%			
Disability						0.2%	0.2%	0.2%	0.2%	0.3%
No-fault liability										0.1%
Quality based pay									0.2%	0.2%
Special medicine								0.2%	0.2	0.3%
Antiretroviral medicine					3.4%	4.2%	4.3%	2.8%	2.3%	2.3%
Renal replacement therapy								1.4%	1.2%	2.5%
Chronic diseases									0.3%	0.5%
Psychiatry										0.2%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Capitation Baht per capita</b>	<b>1,201.4</b>	<b>1,201.4</b>	<b>1,308.7</b>	<b>1,396.4</b>	<b>1,718.0</b>	<b>1,983.4</b>	<b>2,194.3</b>	<b>2,298.0</b>	<b>2,497.2</b>	<b>2,693.5</b>

# CSMBS UC FOR ALL



## Connecting and Managing Health Insurance Schemes through ICT System





# Connecting and Managing Health Insurance Schemes through ICT System

Sunanta Thongpat  
Peranan Jerayingmongkol

Public access to health care is crucial policy for many countries, including Thailand. There are three health care insurance schemes for Thai citizens. The Civil Servant Medical Benefit Scheme (CSMBS) run by the Comptroller General's Department, Ministry of Finance is for five million civil servants and their family members. The Social Security Scheme (SSS) run by the Social Security Office is for about nine million employees of the private sector. The Universal Health Care Scheme (UC) regulated by the National Health Security Office (NHSO) is for the majority of the Thai population, about 48 million.

Each health scheme has employed different financing models and information systems. Only medical record databases will be linked for hospital use nationwide. Information about all Thai citizens is available in smart identification cards. Call centers are also available for any inquiries about individual health insurance and benefits of each health scheme.

## Improving health, connecting people by ICT

Thailand is facing challenges of delivering an accessible, affordable and responsive health service to its estimated 60-million population. Thus, information and communication technology (ICT) needs to be adopted for improving and managing any national health system. Information management includes logistics system for patients, access to health insurance, and patient medical records.





Three main health care insurance agencies of Thailand

ICT benefits health workers to not only make better decisions for treatment but also provides quality and safety care for patients through local and national information systems. This support system enables hospitals to achieve effective, efficient and equitable health systems. The three agencies overseeing health funds manage and co-ordinate different health schemes by using ICT systems.

The UC scheme is the focal point of all insurance registries. Joint insurance agencies, CSMBs and SSS, send updates on beneficiaries to NHSO overseeing the UC scheme at least twice each month. The agency then updates national health insurance registries on a daily basis. So health care providers can access updated patient information and improve service and workflow at the frontline. (see diagram I)

**Smart health smart living by smart ID card**

## Beneficiary enrollment system

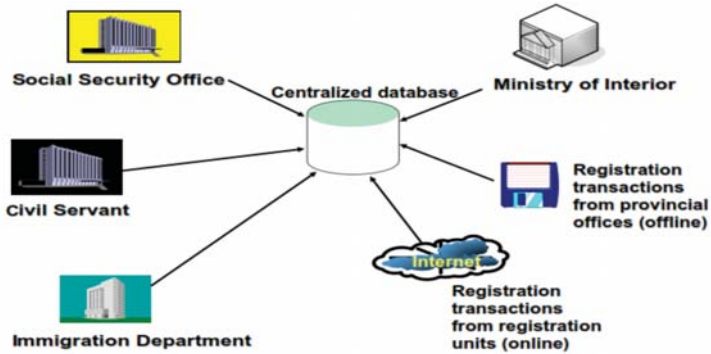


Diagram I : Beneficiary enrollment System for Universal Coverage

Under the national health system, patients can easily access health care services by simply presenting their identification cards to hospital staff. The smart card contains a patient's profile and medical record in a microchip. Patients therefore can access health care in any hospital throughout Thailand. Medical staff can also automatically access a patient's profile including their types of health care insurance, personal reports and medical records and can provide appropriate services for their patients. (See Diagram II)

## Call center as communications tool for patients

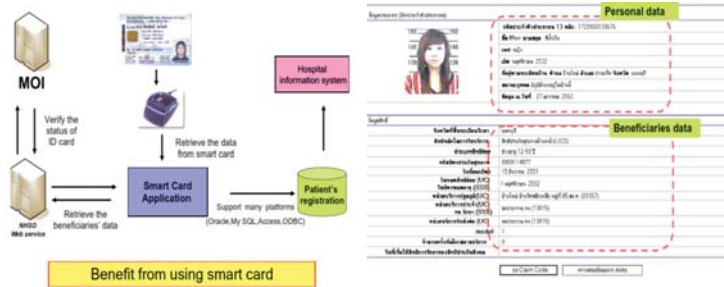


Diagram II : Smart card and its benefit for individual to access health services

The call center of health care insurance schemes was set up as part of a comprehensive approach to coverage. The center helps to ensure that clients will receive proper services, which are responsive to their specific health conditions. Also it is a



Call center is available everyday, 24 hours

convenient channel for clients to share any complaints or comments about the services. This feedback will be followed up in order to improve future services. The hotline numbers 1506 and 1330 operated by SSS and NHSO respectively are available on a twenty four hour basis.

### A case study of Bang Yai Hospital Bang Yai at a glance

Located nine kilometers to the west of Nonthaburi province, the district has rich hundred year history. The area lies within the fertile plain of the Chao Phraya River which benefits its agricultural production. About 124,000 residents are living in the district, which is surrounded by canals that connect a number of villages. The majority of Bang Yai's populations are employed in the agriculture sector such as fruit growing and rice farming.



Bangyai hospital : a 30 bedded hospital

### Hospital background

Bang Yai hospital was originally established in 1963 at Pikul Ngern temple as a community health center. It has been developing gradually in response to the needs of the increasing number of local clients. A small health center has been extended to be a 30-bed community hospital at present.

Nevertheless, this small hospital aims to provide high quality of services within a safe environment and one which provides a welcoming



Health services at OPD

atmosphere. The hospital staff also have pride in developing high quality services in line with hospital objectives. Bang Yai hospital has been accredited since 1999. Many local and national awards were also given in recognition of its performance and high standard of services.

### ICT achievement of Bang Yai Hospital

ICT was adopted for supporting the UC scheme when it was first



Using ICT to improve quality of service

introduced in 2002. Bang Yai hospital is one of the prominent local hospitals ready to put the approach into practice for improving health care delivery and public health services. The ICT system could link the hospital to administrative offices of three health purchasers NHSO, SSS and CSMB. Patient information databases which link together via ICT systems helps hospitals nationwide to facilitate efficient and effective access to health services, which are required by the patient.

Patients arriving at the hospital only show their smart identification cards to access health care services. Their personal profile and medical history will be checked before carrying out basic health screening, seeing doctors as well as receiving medication and other specific treatments.

However, different data records of patients under each health care scheme prompted hospital staff to seek ways to deal with such challenges, which affect efficiency and effectiveness of hospital services. By using ICT benefits, a new program called '3P' (Payment, Prevention, and Promotion) was piloted in 2011 with the cooperation of the National Electronics and Computer Technology Center of Thailand(NECTEC). The program helped to standardize patient records for all health schemes with accuracy and precise management.

### Rethinking the benefits of utilizing ICT on health care coverage

The development of ICT for health care coverage is on-going. More work remains to be done in order to secure the obvious benefits of ICT in practice for the national health care system. Utilizing a computer system enables Bang Yai hospital staff to access patient records quickly online without having to spend much time on hardcopy. Hence, they have more time to provide and develop effective services for patients. *"Since we've had smart card and used ICT for hospital management, it is much better for staff to find out and complete patients' medical records. Everything has been recorded for us to look up in the computer. So we have more time to take care of our patients and provide fast services as well," said Prae Chittinand, a dentist at the hospital.*

The dentist said she used ICT as a management tool to help improve decision-making when diagnosing patient's symptoms. IT also helps to reduce staff workload. So staff can focus on improving services to meet patient satisfaction.

### Challenges for the future

The advantages of utilizing ICT for managing universal health coverage in Thailand and improving overall health care services have been recognized by many medical and health professionals.

However, significant gaps in each health care insurance scheme are



Patient data could be accessed via ICT and linked to administrative offices of NHSO, SSS & CSMBS

also evident. Different standards of documentation and financing reimbursement among the three health schemes could result in misunderstandings in health benefits among clients and staff and delays in access to health care.

The Social Security Office and National Health Security Office overseeing SSS and UC schemes respectively are planning to share similar core service packages and payment methods. Thus, people should be well informed about health benefits and other information necessary for their decision-making in order for them to better access health care services in the long run.





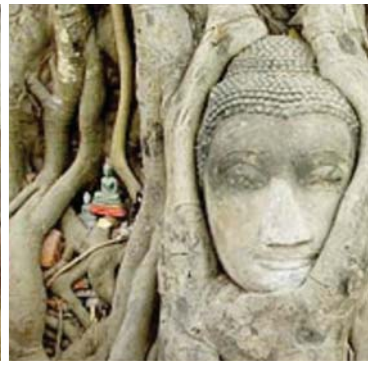
## Summary and conclusion

The comprehensive national health policy entitles all Thai citizens to access to health care. The three health care schemes: SSS, CSMBS and UC, have been connected and managed through an ICT system. Such an advance in the health system significantly benefits individual patients. However, it also presents challenges to the development of health policy and its implementation.

### *Acknowledgements*

The authors would like to give special thanks regarding their information, time, and support to; Boonchai Kijsanayotin, MD, Ph.D. HSRI, Thailand Prael Chittanand, Deputy Director of Bang Yai Hospital Netnapi Suchonwanich, Assistant Secretary General, NHSO Suradet Waleeittikul, Director, Medical Service System Management Bureau





# Ayutthaya Integrated Health Care System : The Initiation of Universal Coverage in Thailand



# Ayutthaya Integrated Health Care System : The Initiation of Universal Coverage in Thailand

Kamolrat Turner  
Pornruedee Nitirat  
Yongyuth Pongsupap

Overcrowding at out patient departments (OPDs) was common at tertiary hospitals in Thailand over two decades ago. Going to a hospital meant trying to reach the hospital before six o'clock in the morning in order to get an early position in the queue to see a doctor. By the time the patient was seen by a doctor, it could be almost noon. Unlucky patients might need to wait until the afternoon as the doctor had a break for his lunch.

In another department of the hospital a relative was negotiating or even begging the social welfare worker to acknowledge the patient's financial difficulties, so that the treatment cost could be waived or reduced.

Many Thais, particularly the poor, used to have difficulties getting access to health care facilities. Some of them even went bankrupt due to high cost of treatment of their illnesses. Some had to sell chickens or buffalos to afford hospital care. Many others chose to stay at home because they did not have money and did not want to go through the painstaking process of receiving treatment. Those unfortunate events have gradually faded off since the establishment of the Universal Health Care Scheme (UC) in 2002. In fact, the origin of the UC scheme was rooted in Ayutthaya province.





Crowded OPD of a tertiary hospital



Unhappy faces at OPD

### Ayutthaya at a Glance

Listed as a UNESCO world heritage site, Phra Nakhon Si Ayutthaya or Ayutthaya is one of most frequently-visited provinces among tourists coming to Thailand. Located on the Chao Phraya River plain and only 76 kilometers north of Bangkok, it is about an hour away from the capital city. As it was the second capital of Thailand and a trade center of the East in the 1350s, the province, rich in its history, is a popular day-trip destination for locals and foreigners alike.

In terms of health care settings, there is one supra-tertiary hospital,



An impressive ruined city of the world



A Buddha image head embraced by the roots of a huge banyan tree



Temples along the Chao Phraya River

one tertiary hospital, 14 secondary hospitals, 205 local health centers, and 6 urban health centers. All these health facilities collaboratively contribute to cover a population of about 800,000.

### The Origin of the Ayutthaya Model

Before the development of the UC, unhappy faces of patients crowding Phra Nakhon Si Ayutthaya hospital were commonly seen. Many times there were arguments between patients and nurses because they spent long hours waiting in the queue. Such problems due to overwhelming workload, unreasonable competition in health care settings, inequity in service accessibility, low community participation and over utilization of high technology were similar at state hospitals nationwide.

To solve these health-related problems, urban health centers and an integrated health system were initiated in the province in 1989. The project, which reduced overcrowding of the outpatient department from 2,000 to about 900 per day, brought satisfaction to patients and health care personnel alike.

“Among these 2,000 patients only around 5 per cent needed tertiary treatment, 35.8 per cent could be treated at a community hospital, and 59.2 per cent should be treated at a primary care unit (PCU)”, said Dr. Somchai Virochsang-Aroon, an expert in Public Health and Acting Provincial Chief Medical Officer of Phra Nakhon Si Ayutthaya Provincial Health Office.

National development of PCUs was considered a good solution for public health care accessibility. However, the weaknesses of primary care services were recognized through the high use of tertiary hospitals. It was crucial that PCU capacity needed to be strengthened first.

“Creating a desirable health system meant we have to listen to the public voice. We need to shift from disease oriented to suffering oriented. Understanding the need of people is the most important point to start with. Good health care services should be based on the concerns of human beings rather than the needs of health personnel only,” said Dr. Somchai.

In the past, PCUs focused only on health prevention and promotion while communities wanted curative services. Health care provisions





Urban Health Center of Pra Nakhon Si Ayutthaya Hospital      Health service activities at temporary Urban Health Center during the flood

which did not serve public needs led to overcrowding at secondary and tertiary hospitals. Establishment of an Urban Health Center was then proposed to solve the problem. This center was developed based on the principles and concepts of integrated, continuous, and holistic care within an integrated health care system through the Ayutthaya Research Project and Health Care Reform Project. Action research was adopted as the methodology underpinning these two projects.

The first urban health center in the province was established in 1991 with one doctor and three nurses. The population in the area were provided with comprehensive health services covering all dimensions of care. Regular home visits were carried out to ensure the continuity of care and to reduce patients overcrowding at the hospital.

While visiting the community around the established urban health center in those days, you would see a doctor and three nurses carrying out a health census to define the community population as well as to foster good relationships. These skilful and knowledgeable health care personnel with positive attitudes were carefully selected to be posted at the center.

Patients were required to pay only 70-baht (US\$2.5) for the treatment of one disease per year. Identifying a flat rate payment seemed to be the most challenging task. At a community meeting someone said “I feel like I have to pay more...”. The other argued “No, I think we pay less than under the former system of payment...”. The flat rate was estimated from the average cost, which was 80 baht. Then, it was



negotiated with the community and finally agreed upon to be 70 Baht per disease. An idea of a payment per one disease was to promote a continuation of treatment seeking. Drawn from Ayutthaya's flat rate, the national UC proposed that the flat rate under the scheme be adjusted 30 baht per visit.

Building people's faith was very important but also challenging or people would not go to the newly established health center. A comprehensive approach was created for the registered population. The information system was the main tool used to promote empathy towards the comprehensive approach. Privacy of the consultation room and systematic interaction with the community were also arranged. A home visit was performed to ensure the progression of the disease and continuity of care.

Developing an excellent urban health center solely would not be able to solve the complex problems of health care services. The Ayutthaya project has developed an Integrated Health Care System embracing the characteristics of good linkage among different levels of health care settings, no overlapping of services, and no functional gaps.

The continuation of treatment among patients with chronic diseases was a major concern of the providers. Patients with chronic diseases such as Diabetes Mellitus would be provided with a book of record on their medication history for their convenience when receiving treatment at other health units. Such practice also came in handy during months of flooding in Ayutthaya late in 2011. Patients with chronic diseases could access continuous treatment at any accessible health care unit with their little record books. Health services were also delivered at home during the flood.

### **From Ayutthaya to Nationwide**

The success of the Ayutthaya model caught political attention. Universal Health Coverage was introduced to Thai people as a main policy of a political party under the so-called "30-baht for all health problems"







Health services delivered at home during the flood



A boat as an ambulance



An army truck as an ambulance

campaign. Patients had to pay only 30 baht for each medical service. After winning an election, the policy was implemented nationwide in 2002. The policy has been changed later on and moved to a “free-of-charge” service.

Nine years on, it is undeniable the UC scheme benefits the majority Thais. However the Ayutthaya model still had some weaknesses in terms of PCU enhancement and integrated care provision according to Dr. Yongyuth Pongsupap.

“It’s good that the UC scheme has become a national policy because it ensures improvement of the whole health system. However, quality of health care regardless of treatment, prevention, promotion, and rehabilitation should be integrated and synchronized. During 10-year implementation, this issue hasn’t been much of a concern among involving sectors although it matters” he said

### Keys to Success

Following are factors contributing to a success of the Ayutthaya urban health center.

**Paradigm shift on PCU role to cover all dimensions of health services:** it is important to gain public trust regarding urban health centers in order to reduce patients overcrowding hospitals. Services in PCU were improved to be more proactive. Various activities including providing proper services, promoting community participation to encourage a sense of ownership, and capacity building for PCU staff were carried

out to improve quality of primary care service. Some services were delivered to patients through home visits. A patient's house became a homeward and family members were care givers. Home visits helped increase close-knit relationships between PCU staff and family members. Another service improvement was the working environment in PCU. The environment was adjusted to raise provider-client relationships, clients' convenience, and the working atmosphere in general.

**A concern for community participation:** a concept of community participation was applied to PCU work. Community meetings were also used as a strategy to involve people with PCU obligations. Collaboration from the community has increased due to a sense of ownership.

**IT System Utilization:** medical records included not only individual but also family health information, called a 'family file', where illness data of each family member and other health determinants of the family were recorded. An IT system was applied to maximize the use of data. The population suffering chronic diseases and those having risk behaviors were categorized to enhance quality of PCU services.

**A viewpoint of 'happiness and misery sharing':** the concept of the rich helps the poor concept led to an agreement to conduct health services at a 70-baht flat rate in Ayutthaya. The payment model later contributed to the national policy on the UC or 30-baht health scheme.

**Support from authorities:** such health system innovation required not only support from provincial authorities, but also dedication of medical health staff and community participation to put the project into practice.

## From Good to Great

Even though the Ayutthaya model was proved to be successful, further improvements in some areas should be taken into consideration. PCUs must be improved to meet a standard of integrated health services. The Ayutthaya model was a health system innovation contributing to



the national health coverage at present. It is crucial for the National Health Security Office (NHSO) overseeing the UC scheme to improve quality of primary care units not only in Ayutthaya but throughout Thailand.

In addition, a number of family doctors and nurses at primary care units must be increased to increase service capacity. Competencies of PCU staff should also be enhanced to support health services and reduce overcrowding at secondary and tertiary care facilities.

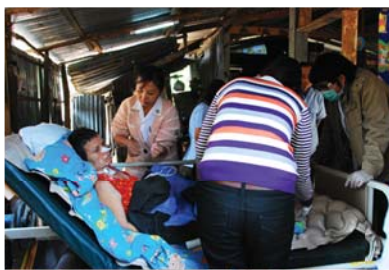
The private sector should be another alternative. At present, only a few private clinics and hospital have participated in the UC scheme. Collaboration between private hospitals and the National Health Security Office overseeing the UC scheme should be greater in the future to ensure health accessibility of all Thais.

In brief, the Ayutthaya model has contributed to the present national UC of Thailand. Although the Ayutthaya model has been somehow distorted when applied to the national policy, it has been powerful to improve the health system in Thailand. The success of UC required quality of care at the PCU level. There is no doubt about the quality of all urban health centers in Ayutthaya, which is not the case in all PCUs in Thailand. Thus, 'PCU reinforcement' might be at this moment, the take-home word.

### **Acknowledgment**

This article would never been completed without rich information given by the following key health care personnel. We would like to extend our deepest appreciation to Dr. Somchai Virochsang-Aroon, expert in Public Health and Acting Provincial Chief Medical Officer of Pra Nakhon Si Ayutthaya Provincial Health Office, Dr. Weerapol Theerapuncharoen, Director of Phra Nakhon Si Ayutthaya Hospital, Dr. Surachai Chokkhanchitchai, Deputy Director of Phra Nakhon Si Ayutthaya Hospital, and Dr. Duangporn Asawarachun, Deputy Director of Phra Nakhon Si Ayutthaya Hospital.





# Universal Health Coverage for Decentralization and Humanistic Care : Lam Sonthi Model



# Universal Health Coverage for Decentralization and Human- istic Care : Lam Sonthi Model

Sukjai Charoensuk  
Wanida Sriworakul

## Lam Sonthi at a Glance

Lam Sonthi, the easternmost district of Lopburi province, is about three hours driving from Bangkok. The district was named after a small Sonthi River originated in Sap Langka Wildlife Sanctuary, the last forest of Lopburi, and the gate to the Northeast. The majority of people earn their living by agriculture such as planting sugar-canes, cassavas, corns, sunflowers and rice. The countryside living makes a simple, supportive and compassionate community.

Lam Sonthi hospital is a 30-bed community hospital providing care for approximately 27,000 people in the district. Of the total, up to 25,000 depended on the Universal Health Care Scheme (UC). The rest are covered by Civil Service Medical Benefits Scheme for civil servants and their family and Social Security Scheme for employees of private sectors.

## Hospital Network for Decentralizing Community Health Services

The hospital began providing community health services in 1992 with a doctor, two nurses, and three public health staffs. Nineteen years have passed and there is still only a doctor working there. However there are 112 staffs such as nurses, psychologists and physical therapists willing to work with heart and provide quality health services for Lam Sonthi residents.







Lam Sonthi hospital, a 30-bed hospital for 27,000 Lam Sonthi residents



Dr. Santi Lapbenjakul, the director of Lam Sonthi hospital

*“Human life is my focal point of working”,* said Dr.Santi Lapbenjakul, Lam Sonthi Hospital director.

Dr.Santi has devoted himself to work and improve quality of life among Lam Sonthi residents for over 10 years.

As soon as the UC scheme was established in 2002, he saw the scheme’s purpose of providing essential health services for majority Thais with equity, quality, efficiency, and social accountability as opportunity to extend health care access in remote Lam Sonthi district community.

Poverty and inadequate public transportation in remote areas are significant obstacles for the local to access health care services, particularly those who are suffering from chronic illnesses such as diabetes, hypertension and disabilities. These are major health chal-



Rusty road, a main route for residents in remote area



A common house of Lam Sonthi community

lenges for medical and health staffs in remote areas like Lam Sonthi. Following a slogan of “Klai Ban Klai Jai” meaning close to home, close to heart, Dr. Santi came up with an idea to enable the hospital and

seven health promotion hospitals in the district to work as a network.

Local people do not have to take a long trip to Lam Sonthi hospital, but visit the district health promotion hospital nearby their houses instead. Health personnel as well as necessary medical equipment and materials are also provided to network hospitals to ensure that people will get quality health services.

Ideally, the family-medicine doctor is required at a district health promotion hospital. However a professional nurse practices as a family-medicine doctor at district health promotion hospitals in reality. Thousands of nurse practitioners are trained to work at 9,750 district health promotion hospitals nationwide.

In Lam Sonthi district, each of seven health promotion hospitals has a nurse practitioner in station working with Lam Sonthi multi-disciplinary health care team in the remote area. Essential drugs and medical devices have also been distributed to the health promotion district hospitals.

Information technology management is also developed to improve community health care. Patients usually get basic medical care at a health promotion unit. However consultation via mobile phone, computer and the Internet for complicated cases is also available. So a physician at the hospital would observe patient symptoms and consider if the case should be transferred to district or provincial hospitals for proper treatment.

The Universal Health Care coverage aims not only to provide curative care but also disease prevention and health promotion. Primary, secondary and tertiary levels of prevention are put into practice based on holistic approach at Lam Sonthi district. Care provided by health care network therefore is not limited to only at hospitals, but also in the community. Home visit is regularly carried out by the health care team comprising nurses, psychologists, and physical therapists.







Care of chronic illness patient at home



Care for disabilities at home by health care team



Promoting child development, one of health promotion activities run by Lam Sonthi health care team

Holistic and continuous care is considered a core of quality health care. Elderly, disabilities and those suffering from chronic illnesses and mental problems are significant targets of Lam Sonthi health care network.

A working group for each target coordinates with a nurse practitioner to carry out holistic care. Multi-stakeholders in the community, including the local administrative organization, leaders in the community and family, are also encouraged to get involved in health activities for sustainability of the project.

### **Funding for Community Participation into Health Activities**

In fact community participation into health activities makes a possibility to get more funds from the UC scheme.

The hospital usually gets budget based on a number of population in the area. NHSO overseeing the UC scheme in 2006 earmarked local funding for health promotion activities in a bid to encourage local administrative bodies to participate into the program. Primary health

care services, especially for mothers and their children, disabilities, chronic illnesses and elderly people are eligible for the local fund.

Under the UC scheme, NHSO also provides fund for rehabilitation of disabilities including those having mental health problems such as schizophrenic, autistic and learning disability (LD).

*“National Health Security Office provides many kinds of fund, it depends on our view to seek an opportunity to focus on people life, not just our routine work,”* he said,

Because of positive attitude, Dr. Santi could manage to seek different financial resources available under the UC scheme to run the hospital services and other activities for improving quality of life among Lam Sonthi residents. About 80% of the hospital financial resources are from 1,250 baht budget per head and the rest from the local fund.

A so-called “Phutao Maitau Kaow” project meaning white crane for the elderly is aimed at helping the blinds take care of themselves. Many elderly in Lam Sonthi district are blinded because of aging and diabetes. Over 100 of the elderly with vision difficulties are trained to walk by using the white crane, count money, and do other daily activities. Dr. Santi said a trainer would visit the elderly at home once a month since the training is needed to set up in their real life. In 2010, the health care team could manage to visit this target group more than 2,000 times.

### **Lesson Learned**

Voluntary work by village care givers can also support community health care in Lam Sonthi district. They are trained to help take care of the disabilities at home.

Because of community-based training which fits local ways of living,





Uncle Yong KoonKhuntod,  
one of “Phutao Maitau Kaow”



The blind training at home

hundreds of disabled elderly, once hopeless with their living difficulties, are empowered to take care themselves. Some of them are even capable of looking after others.

Such activity driven by Lam Sonthi people together with local administrative bodies and the health care network should not be abandoned as elderly, disabilities, psychiatric patients, and special children in the communities directly get sustainable benefits from those projects.

*“Community health care has changed from routine work to humanized health care which medical doctors and health staff have to work by heart,”* said Dr. Santi.

For the blind, the hospital could manage to offer new lenses for more than 400 cataracts via collaboration with other hospitals to outsource ophthalmologists for providing treatment, he said. Although a total cost of the lenses extraction is 7,000 baht (US\$234), the UC budget

does not cover all expenses. The hospital would absorb the rest expenses, which is about 500-1,000 baht (US \$ 16-34) per case due to his belief in cost-effectiveness of the project that increases numbers of the poor blinds who are eligible for lenses replacement.

Dr.Santi said medical experts on ear, nose and throat from Anunthamahidol Hospital in Lopburi province are invited to provide care and hearing aids for 126 patients having hearing disabilities.

In addition, psychiatrists were also contacted to help check patients suffering from mental health problems such as schizophrenic. Experts also come to the hospital to train family members to take care of autistic children.

Dr. Santi said these disabilities related to mental health could be family burden and that care and training should be available for both patients and family members.

Collaboration with community and regional health security office at Sara Buri province contributed to the success of Lam Sonthi Hospital, siad Dr. Chalor Santiwarangkana, director of Sara Buri Regional Health Security Office.

The office does not only distribute UC budget to Lam Sonthi hospital, but also encourages the hospital to run several activities by providing information and training personnel about the UC, he said.

## **Conclusion**

Lam Sonthi Hospital would be a great example of UC decentralization that increases equity and quality of care for people in rural areas. The sustainability of care is a challenge if the UC decentralization is put into practice without patient-focused and humanized-care attitude.

## **Acknowledgement**

Many thanks to Dr. Santi Lapbenjakul, the director of Lam Sonthi hospital and his care team in sharing praiseworthy stories to us. Spe-



cial thanks to Dr. Chalor Santiwarangkana, the director of Sara Buri Regional Health Security Office, and Mrs. Phanit Manokarn, assistant director Bureau of Human Resources and Change, National Health Security Office for providing useful information to complete the story.





# Universal Health Coverage for High-Cost, Complex Diseases : The Challenge of University Hospitals and Excellence Centers





# Universal Health Coverage for High-Cost, Complex Diseases : The Challenge of University Hospitals and Excellence Centers

## Case studies of the Faculty of Medicine Ramathibodi Hospital, Mahidol University and the Central Chest Institute of Thailand

**Panarut Wisawatpimit  
Supaporn Wannasuntad**

An estimated 9 million Thais have been identified with chronic, high-cost illnesses such as heart diseases, kidney failure, hemophilia, stroke and HIV/AIDS according to a report by National Health Security Office (NHSO) overseeing the Universal Health Care (UC) Scheme in 2010.

Although, the UC was launched in 2002 for the majority 45.4 million Thais, the program known among locals as the “30-baht health scheme” or “golden card” however did not cover treatment for those high-cost diseases at the beginning. Many patients and their families were left to battle these diseases by themselves. Some had to save money or spend entire savings to pay for the medical bills. Some families were even heavily in debts for keeping lives of their loved one.

The issues of chronic diseases have become a burden for not only patients and their families but also government, and the society.

The NHSO overseeing the UC scheme acknowledge the problem and took step resolve the burden. In 2005, the agency initiated a project on high-cost disease management in order to meet the goal of accessibility to good health for all Thais. Referral and reimbursement systems for high-cost diseases were developed based on evidence and participation of all parties including people network.





Although all chronic diseases have not yet been covered by the UC, the pilot project provides a good start and has become a model for further and future development of chronic disease treatment.

The university hospitals and excellence centers having expertise in complex diseases and advanced treatment play an important role in providing care of patients suffering from chronic diseases. Simply, many patients cannot afford high cost treatment and long-term care.

This report provides a lesson how the Faculty of Medicine Ramathibodi Hospital, Mahidol University and the Central Chest Institute of Thailand deal with chronic patients under the UC scheme.

## **The Faculty of Medicine Ramathibodi Hospital, Mahidol University : Life-Saving Mission vs. Budget Constraint**

Located in the central area of Bangkok, the medical school has produced health professionals such as doctors and nurses since 1965.

Also, Ramathibodi Hospital is highly reputed among Thais as tertiary care with experienced specialists and advance treatments.

The 1,300-bed hospital provides care for a vast number of patients, with over 1.2 million out-patients, over 33,000 in-patients per year, and the 33,000 UC population that are under Ramathibodi Hospital's responsible area. Many patients under the UC scheme are also re-



Faculty of Medicine  
Ramathibodi Hospital

Somdech Phra Debaratana  
Medical Center: A New  
Excellence Medical Center  
of Ramathibodi Hospital

Registration for the UC  
patients (Left Counter)

ferred from secondary hospitals nationwide for advanced, high-cost treatment such as renal transplantation and hemophilia.

### Renal transplantation for patients under the UC scheme

Before the chronic disease program was piloted in 2009, it was impossible for an estimated 47 million Thais listed under the UC scheme for access to kidney transplantation. Most patients were the poor and the unemployed, and could not afford to pay out of their pockets for the transplant.

Regarded as the best option for kidney patients, the procedure however is expensive, about 300,000 baht for each case. Additionally 10,000-30,000 baht is also needed each month for post-transplant medication required to prevent the rejection of a new kidney.

For 25 years, Ramathibodi Hospital has been the pioneer of kidney transplantation in Thailand. The hospital is also the first medical school participating in the renal replacement program for patients under the UC scheme due to experience in providing care for patients with financial difficulties.

Due to the project, the UC patients suffering from end stage renal disease can access kidney transplantation free of charge. While waiting for the transplant, they also will receive peritoneal dialysis provided



under the scheme. However, those receiving hemodialysis have co-payments, approximately 500 baht for the treatment.

Based on the Annual Report of the NHSO in 2010, a total of 16,509 patients under the UC scheme suffered from end-stage renal disease. In January 2011, 610 cases were listed for kidney transplantation at 15 hospitals joining the renal transplantation project. Of the total, 451 cases, waited indefinitely for the operation while 128 cases had their kidneys transplanted. Due to a long wait, 31 cases died before the transplantation.

About one-third of those waiting for the kidney transplantation are patients of Ramathibodi Hospital as of June 21, 2011.

Thailand is among a few countries extending universal health care benefits to cover kidney transplantation. However, a lack of kidney donors remains problematic of public attitude towards organ donation. There are only on average 80 donated kidneys per year. This amount does not reach the targeted 1,000 donated kidneys at large.

Collaboration with involved parties is needed to provide a systematic strategy to overcome the long term problem.

Technical difficulties concerning referral system should also be resolved. The medical school addressed the issue by training physicians from regional hospitals to practice kidney transplantation. Thus referral cases would be reduced and such advanced treatment as kidney transplant could be extended to rural hospitals following the Ramathibodi Hospital mission.

A Memorandum of Understanding (MOU) between the NHSO and the Excellence Center for Kidney Transplantation under the direction of Professor Sophon Jirasiritham, Head of Kidney Transplantation Project, Ramathibodi Hospital was signed on January 24, 2011, thus strengthening collaboration and support as well as to increase the number of donors.

The two agencies aimed at providing 80 kidney transplants in the first year, 120 cases in the second year, and 150 cases in the third year for the UC patients through developed referral system and activities aimed at raising public awareness on the benefits of kidney trans-



Prof. Sophon Jirasiritham



Teaching medical students about kidney transplant

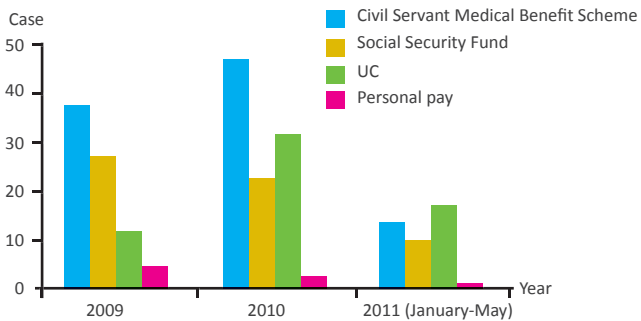


A patient receives hemodialysis.

plantation and donation.

### National Health Advocacy for Better Accessibility and Quality of Life among Hemophilia Patients

Apart from kidney patients, those suffering from hemophilia also faced



**Figure:** Comparing the number of kidney transplant patients at Ramathibodi Hospital based on the health insurances and payment



similar problems of lacking finance to afford high cost treatment. Had Ramathibodi Hospital not held the “Hemophilia Day” on April 25, 2005, the project for this chronic disease would not have happened.

In fact, the hospital has organized Hemophilia Day since 1995 in order to educate the public about congenital and hereditary bleeding disorders, including hemophilia.

In 2005, the late Dr Sanguan Nittayarumpong, NHSO secretary-general at that time, was invited to open the event. It was during this time the agency agreed to provide an additional option for the 30-baht health scheme to cover chronic diseases requiring high-cost treatment.

With the collaboration among NHSO, Ramathibodi Hospital, National Hemophilia Foundation, Ministry of Public Health and the network of hemophilia patients, the caring system for the UC, hemophilia patients by using the disease management system has developed since May 2006.

About 1,039 hemophilia cases were listed in the UC scheme during 2006 - 2010.

The International Hemophiliac Training Center (ITHC)-Bangkok at the hospital is renowned nationally and internationally as leading hemophilia treatment center.

Selected by the World Federation of Hemophilia (WFH) in 1984 until now the center carries out a variety of research activities to develop clinical practice guidelines and carry out optimal care for hemophilia patients in spite of limited resources.

Patient database was linked with the NHSO via computer system for monitoring hemophilia record in the country.

According to the disease incidence, Professor Ampaiwan Chuansumrit, Director of ITHC Bangkok, however estimated about two third of hemophilia patients still did not enroll to the program because of scarcity

of hematologists and difficulties in early detection or screening.

The center helps provide knowledge about hemophilia for patients, family members, and health care personnel. NHSO supports production and distribution of videos, booklets, leaflets, and comics. Ramathibodi Hospital provides a hotline number 089-441-3100 for 24 hours to answer questions related to hemophilia.

Based on research conducted by the hemophilia center, home care is considered the best cure for hemophilia patients. Consequently, NHSO allocated budget for purchasing equipment essential for patients to use at home and nearby community hospitals.

Patients over 6 years old, family members and caregivers would be trained on how to take care of hemophilia conditions and other factors leading to bleeding symptoms at the hospital and also via a day and an overnight hemophilia camps organized at Ramathibodi Hospital.

Such training activity helps patients and families reduce concerns over health conditions, whereas quality of life among patients and relationship with families and health care team is improved.

Following a survey on hemophilia patients and family members after participation in the UC disease management program, 77.9 % rated their quality of life to the highest.

After six years of the development of the national hemophilia program for the UC patients, 42 health centers has been extended nationwide to increase access to health services for hemophilia patients and reduce hospital over-crowding. Better quality of life among hemophilia patients reflected success of the program.

Although the UC program for the hemophilia patients are somewhat successful, funding for treating complex cases, particularly those





Educational materials about hemophilia



Professor Ampaiwan Chuansumrit teaches a patient for self medication



Health care team, patients, and family members battle the disease together.



Collaboration of health care team, patients, and families for Hemophilia Day 2011

with inhibitor, is still considered insufficient and should be taken into account.

Professor Ampaiwan highlights an example of a hemophilia case which required treatment cost as much as 17 million baht. The amount was 140 times more than the budget paid by NHSO. Each year, about 15 cases are found having inhibitor problem.

*“Who will be responsible for the rest of the treatment cost?”* she said.

Unavoidably, such complex hemophilia cases would become a challenge for the hospital and the medical staff to overcome a balance between life-saving mission and budget constraint.

Although Ramathibodi Hospital focuses on saving patients’ lives by shouldering financial burden and trying to find funding to help patients, NHSO also needs to solve the financial issue affecting hospital capacity to provide health frontline services to meet patient’s need.

It is questionable how lives of a few patients in need of high-cost treatment are neglected as NHSO duty is for the responsibility for health security for all Thais.

### Lesson Learned

Ramathibodi Hospital undoubtedly focuses on a vision of being “a leading guide for national health advocacy and one of the foremost academic institutions in Thailand with an established international reputation”. The hospital mission aimed at providing the best quality of education, research as well as health care service and promotion is also evident.

With collaboration between involving national and local agencies, the hospital plays an important role of driving forward national health policy and extending health security and benefits to cover Thai patients suffering from diseases required costly treatment.

Although the NHSO has introduced the UC scheme for 9 years, further development on disease management and funding is needed. The agency cannot work alone to meet its aims of equality, quality, cost effectiveness, and social sustainability without satisfaction of all involving parties – hospitals and health care providers at the frontline. Collaboration with university hospitals is essential to enhance the health system and quality of life of all Thais.

### Acknowledgment

Special thanks for all informants and staff of the Faculty of Medicine Ramathibodi Hospital, Mahidol University for helping complete this report, especially Naronglit Masaya-anon, MD, Professor Sophon Jirasiritham, MD, Professor Ampaiwan Chuansumrit, MD, Associate Professor Winai Wananukul, MD. Also, a lot of thanks for the staffs of the National Health Security Office for great information about the disease management, especially Ms. Siriporn Sintanang, Mr. Pramote Yamprom, Mr. Hathaiwut Lamthean, and Ms. Orawan Chaiwan





Universal  
Health Coverage  
for High-Cost,  
Complex Diseases :  
The Challenge of  
University Hospitals  
and Excellence Centers

## The Central Chest Institute of Thailand : Excellence Center that the Poor Can Access



The Central Chest Institute of Thailand      Director of the CCIT

### The Central Chest Institute of Thailand at a Glance :

The Central Chest Institute of Thailand (CCIT), called in Thai Sa-Ta-Ban-Rok-Suang-Oak, is nationally and internationally renowned for cardiovascular disease treatment. The institute was first established in 1942 and named the Central Tuberculosis Hospital in a bid to control and treat only tuberculosis patients. Ten years later, tuberculosis treatment protocol became more advanced and hospitalization was no longer required. That changing trend in treatment provided an opportunity for the hospital to broaden service to medical treatment of other pulmonary and cardiovascular diseases.

After 30 years of service, the hospital name was changed to the Central Chest Hospital in 1972. Since then, advanced technology has been utilized to serve its role as a training hospital for residency in cardiothoracic surgery and fellows in cardiology.

In 2002, the hospital name was then changed to the Central Chest Institute of Thailand under supervision of Department of Medical Services, Ministry of Public Health.

Throughout 70 years of development, the vision of the institute “to strive to be an international excellence in pulmonary and cardiovascular care” has been accomplished.



Located in Nontaburi province, the 350-bed excellence center provides full service of prevention, treatment, and rehabilitation for cardiovascular and pulmonary diseases. The program on cardiovascular disease prevention developed by the institute has been put into practice across the country. The institute also provides technical training on cardio-thoracic surgery for trainees from various countries.

Further challenge in scaling up service quality for cardiovascular patients such as catheter-based intervention and hybrid operation room as well as publishing studies on related area will be focused.

### Excellent Service Free of Charge: Management Challenge

The Central Chest Institute of Thailand has actively cooperated with the National Health Security Office (NHSO) to deliver high quality care for the cardiothoracic patients with universal coverage scheme. Caring in two major areas, myocardial infarction treatment and heart surgery, has efficiently managed to enhance accessibility of the UC patients.

63

Universal  
Health Coverage  
for High-Cost,  
Complex Diseases :  
The Challenge of  
University Hospitals  
and Excellence Centers

#### *Referral Management: Fast Track STEMI Project*

Somwang Thungjitjaroenporn, a 60- year- old flower farmer in Nontaburi province reminisced when he had sudden chest pain while walking to get drinking water after finishing checking damages at his flower farm due to the flood crisis months ago.

“My legs got very fatigue. I thought I would certainly die. I had to call my daughter and she sent me to a hospital nearby. I almost lost my consciousness when hearing a doctor told that I had a heart attack and need to be transferred to another hospital for proper treatment”, he said.

An hour later, the UC patient was referred to the Central Chest Institute of Thailand for undergoing primary percutaneous coronary intervention

(PPCI) and hospitalization until he was recovered from heart attack. The whole process could cost up to 50,000 - 60,000 Baht (US\$ 1,640-1,965). However he did not have to pay for the treatment as it was covered in the universal health care scheme.

Things would have been different if such situation had occurred to Mr.Somwang before the introduction of disease management project.

The National Health Security Office (NHSO) launched the project in 2002 to expand universal health coverage to complex diseases which require costly treatment including cardiovascular disease.

Dr.Sukhum Karnchanapimai, the institute director, and Dr.Kriengkrai Hengrussamee, head of cardiology department, then came up with the so-called “Fast Track ST-Elevation Myocardial Infarction (STEMI)” project aimed at providing advanced medical services for UC patients and solve a problem of high mortality and morbidity rate of the patients with STEMI in Thailand.

According to the World Health Organization, mortality rate of acute STEMI among Thais in 2002 (data from the Thai ACS registry) at 17% was relatively high compared to those of the US at 7.2% (data from the GRACE Registry), said Dr. Kriengkrai.

The institute also works collaboratively among the 47 network hospitals to develop practice guideline and fast track referring system for UC patients diagnosed with STEMI to access to a proper care.

Goals set for the project include door to balloon time or duration from arrival to undergo primary percutaneous coronary intervention (PPCI) of less than 90 minutes, less than 5% of severe complication for surgical cases and mortality among patients with STEMI. Also patient receiving discharge and rehabilitation program should be over 80%.

In addition, standard of health care and referral system for patients with STEMI was developed as a guideline for practice among health





Dr. Kriengkrai Hengrussamee Dr. Kriengkrai made an agreement among network hospitals on referral guidelines in the “Fast Track STEMI”



The Heart Patients Network Group helps prepare patients before surgery care team at network hospitals. Referral system was designed based on geographic distribution and proficiency level of network hospitals.

Part of delayed treatment was due to delayed diagnosis. Therefore, a system for fast-track consultation was conducted. So the network hospitals would receive consultation within 15 minutes.

Moreover, the institute also promoted the hotline number 1668 of the project via taxi drivers to extend patient accessibility to the STEMI project.

Table 1 showed a success of the Fast Track STEMI project. The project won distinguished service network awarded by NHSO. Patients receiving care from the institute was very impressed on excellent services.

**Table 1.** Outcomes of the Fast Track STEMI\* project classified by year

	Goal	2008	2009	2010	2011
Total number of STEMI's cases		39	76	105	233
Number of STEMI's cases underwent PCI**		32 (82%)	76 (100%)	91 (86.7%)	193 (82.8%)
Door to balloon time ≤ 90 minutes	>80%	15 (47%)	61 (80%)	78 (85.7%)	175 (90.7%)
Severe complication after PCI**	<5%	0 0%	2 3%	0 0%	1 0.5%
In-hospital mortality rate	<5%	3 (9.4%)	4 (5.3%)	3 (3.3%)	8 (4.1%)
The STEMI's patients received discharge program.	>80%	100%	100%	100%	100%
The STEMI's patients received rehabilitation program.	>80%	>80%	100%	100%	100%

\*STEMI: ST-Elevation Myocardial Infarction

\*\*PCI: Percutaneous Coronary Intervention

A network of heart disease patients is also set up as voluntary group to work actively as well as to share their experience and support for other patients listed for undergoing cardiac surgery.

Patient transfer system of the project also helps improve health care access among the UC patients suffering from myocardial infarction. Previously, those who could not afford the treatment cost had to request for financial support from social workers. The process was time consuming and the number of patients receiving care from the institute was relatively small. After the UC scheme extended its coverage into high cost diseases, the number of UC patients receiving services at the institute has been gradually increased by up to 75%. However, reimbursement process by NHSO remained time consuming. The amount of reimbursement was even less than the total cost for some cases. Details on each expense which can be absorbed by NHSO clearing house should be further explained to health service providers.



Teamwork expertise and commitment, good management, administrative support, and network collaboration were major factors of the project's success.

### Lesson Learned

An arrangement of a 24- hour primary PCI is possible at the institute due to high commitment and dedication of teamwork. Advanced technology, and expertise of medical staff are necessary for setting a primary PCI. Collaboration between hospitals in the network could also contribute to success of the project.

Standard guidelines are considered very helpful for effective referral system. Public sector such as volunteer groups and taxi drivers should be encouraged to help promote the project. Finally, full support from the director made this project possible.

### Heart Surgery: Enhanced Volume and Accessibility

*"Few years before, it took approximately 1-2 years for patients to wait for valve replacement and coronary surgery at the hospital. Thanks to the project, we can now operate about thousand of surgical cases per year."* - Dr.Taweesak Chotivatanapong, head of cardiothoracic surgery department, CCIT.

Dr. Taweesak is internationally renowned for his expertise on mitral valve repair among patients having rheumatic heart disease. He arranged several training sessions for surgeons the world over. Unlike other medical training, the medical expert integrated Thai classical dance into his training session mitral valve repair.

Despite NHSO support on device, training, and treatment for the UC patients to access advanced services, Dr.Taweesak however found the institute capacity to increase surgery volume was hindered by its limited intensive care unit, intermediate ward, and nurse shortage. Problems were later solved by shortening patient stay at the unit,

training nurses, and extending operation time after office hours. At present the institute could handle approximately 1,000-1,200 surgical cases per year.

*“Dedicated teamwork, advanced technology, good management, cheerfulness and support from leader could enhance our surgery cases,”* said Dr. Taweesak.

Complication after operation was reduced 3.2%. Patients had to wait about six months for valve operation and three months for coronary surgery. The number of UC patients admitted at the institute was from 28% in 2002 to 52% in 2012.

### Future Challenge

Since NHSO has a policy on reimbursing about 80% of the total expense for treating in-patients listed under the UC scheme, putting the health care coverage into practice still remains a challenge for the institute.



Dr. Taweesak visited a post-operative patient with international trainees



Rehabilitation center

*“A good side of this policy is that we have more patients coming to us and we are more careful about cost effectiveness. It also encourages us to improve quality of our services without exceeding cost. On the other hand, budget constraint is a burden for the institute,”* said Dr. Taweesak.

Institute director Sukhum Karnchanapimai said the institute had a policy on providing equal health care standard for every patients. He sought ways to reduce fixed cost of treatment by increasing number





of surgery cases. Although reimbursement for some UC patients was less than the actual cost of treatment, the hospital manages to get by.

*“We do not concern much about profits. Capacity building of health personnel is our priority. The more they perform, the more they gain expertise”,* he said.

NHSO also reimburse equal payment for both simple and complex cases. Such financial clearing system may cause financial burden to excellence center that handles most of complex cases.

Financial payment for a surgeon responsible for each UC case should be increased as an incentive to keep well-trained medical professionals and staffs in the public health system instead of brain draining to private sector.

In addition, the system which forced a hospital to pay more financial treatment for sending referred case to the destined hospital outside its network than the one in its network could obstruct the UC patients to access health services at excellence center.

Finally, the agency should promote the project. So patients would be acknowledged about their rights to access the service.

### **Conclusion:**

Thailand is among a few countries providing universal health care scheme for patients suffering from chronic diseases such as cardiovascular disease. However, effective referral system, human resources, and hospital networks are crucial for putting health care benefits into practice. So patients can really access better care and treatment as provided at the frontline by the Central Chest Institute of Thailand.

### **Acknowledgment**

My heartfelt acknowledgement goes to all contributors at the Central

Chest Institute of Thailand for comprehensive information especially Dr.Sukhum Karnchanapimai, Dr.Kriengkrai Hengrussamee, and Dr. Taweesak Chotivatanapong.

I would like to extend my special thanks to Mrs. Buppawon Srilum and Mrs. Kunlaya Bubphatakun and staffs for helping me access all contributors in the institute.

I also would like to acknowledge the staffs of the National Health Security Office for great information about the disease management, especially Ms.Siriporn Sintanang, Mr.Pramote Yamprom, Mr. Hathaiwut Lamthean, and Ms. Orawan Chaiwan





# Health Network System : A Success Story of Public Private Partnership at Bhumibol Adulyadej Hospital



# Health Network System: A Success Story of Public Private Partnership at Bhumibol Adulyadej Hospital

Thongsouy Sitanon  
Wilaiporn Khamwong

## Introduction

More than two-third of 77 provinces in Thailand recently faced the country's worst flood crisis taken place during July-December 2011. The floodwater moved from the North to the South hitting enormous areas along Chao Phraya and Mekong Rivers including the capital city of Bangkok. Both local and international health experts showed worries over the impact of the flood crisis, which had been left unresolved for months, on health among Thai people especially those suffering from acute and chronic diseases. These people require continuous care and medications. Without special and well-prepared system and management, primary health care will not be effectively delivered during the flood.



His Majesty  
King Bhumibol Adulyadej

Bhumibol Adulyadej Hospital is among a few large-scale hospitals having capacity to continuously and effectively provide primary health care to Thai people networking despite being severely hit by flooding. Had it not been for the hospital dedication to primary care service by having run a health network project among private clinics in the area since 2005, people in flooded communities would have missed their medications and follow-up. Such health network among private clinics could effectively deliver health services to their clients although they were hit by flooding. Their aim was to increase public access to high quality of health services.





BAH and its network clinics providing services during disastrous floods to their clients



BAH and its network clinics providing services during disastrous floods to their clients

## Bhumibol Adulyadej Hospital at a Glance

Bhumibol Adulyadej Hospital is the main hospital of the Royal Thai Air Force under the Ministry of Defense. The hospital is located in the North of Bangkok and close to Don Muang Airport. The super tertiary hospital provides comprehensive health care services to both military staff and civilians with capacity of 700 beds and over 2,500 outpatient visits on a daily basis. There are several key strategies utilized by the management team to effectively achieve these workloads and the hospital's mission. With the strategies of "integrating between super tertiary service expansion and maintaining primary care services" as well as "concentrating on excellent center service development and cooperation with health network system", the hospital is well recognized and received honorable rewards, nationally and internationally. At present, the hospital has four excellence centers including trauma,

cardiac, cancer and Kidney. Furthermore, the hospital has become a role model of “Public Private Partnership” for other secondary and tertiary hospitals by creating a network among private clinics for undertaking primary care services to universal coverage beneficiaries. The hospital also develops and implements advanced information technology system to support staff to work effectively and efficiently. Such information system including patient’s data can be linked and shared among primary care units under the hospital network (Figure 1). Throughout sixty-year history, it has been transformed and re-engineered in a bid to reach the organizational vision “to be a super-tertiary medical center and a training institution with high quality at the national level.”

### Evolution of Bhumibol Adulyadej Hospital

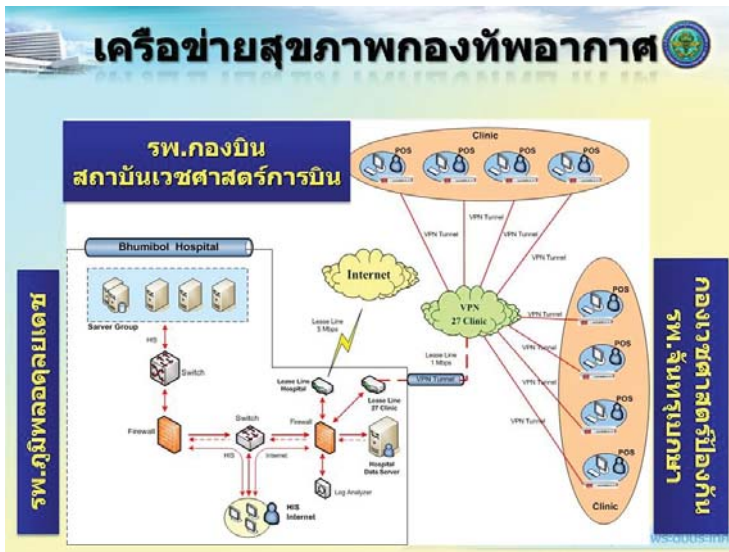


Figure 1: BAH information technology system with its health networks





HM King Ananda Mahidol



HM King Bhumibol Adulyadej and BAH in the past

Bhumibol Adulyadej Hospital was attentively built by receiving royal grace from the two Kings of the Chakri Dynasty. The first King was His Majesty the King Ananda Mahidol (Rama VIII) who donated his royal treasure for buying the land to build the hospital for the Royal Thai Air Force in 1941. The second King is His Majesty the King Bhumibol Adulyadej (Rama IX) who gave a royal permission to the hospital to be named after in 1949.

In 1979, HM King Bhumibol gave a royal permission to build his portrait at the new building and name this building as “Kumklao” building to



BAH in the past





Kumkiao building

mark the 30th anniversary. At that time, it was the country's largest government building, with 70,000 square-meters facility areas. Later, the modern Kumkiao building designed to support the health care system as one-stop service for the public, the hospital has reached the advanced health service era. All the outpatient and inpatient facilities as well as the main unit are located in this building.

Realizing about social and national responsibility, the hospital has improved quality of health care services as well as its infrastructure, continuously and concretely. Nowadays, the hospital has become the super tertiary hospital providing comprehensive health care services with high quality to both military personnel of the Royal Thai Air Force, their family members and general public. Moreover, the hospital has affiliated with the Faculty of Medicine, Chulalongkorn University since 1988, in a bid to provide clinical teaching to medical students. The hospital has also offered residency training programs. At present, there are eight residency training programs and eight subspecialty fellowship programs. In addition, the hospital has elective courses for medical students and visiting fellows from overseas.

The hospital mission can be accomplished because of the deep respect in the Thai Monarchy among hospital staff devoting their knowledge and intellectual to render quality medical services and promote quality of life among Thai populations. They are determined to upgrade and enrich their qualifications, continuously. Such human resource development can be achieved because of the executive awareness





of importance in providing staff support. Currently, the hospital has 2,000 staff including 398 physicians and 794 nurses. Of the total, 90% of physicians and nurses are full time government employees, while other office personnels are hired on contracted basis. All of them work wholeheartedly with their full strengths in a bid to provide patients excellent medical services with international standards.

Apart from high-quality health staff, excellence centers are also available at the hospital for comprehensive medical care services regardless of prevention, diagnosis, treatment or rehabilitation. These centers are also crucial for research and collaboration with national and international institutions. The quality of hospital staff and health care services has been accredited and awarded several organizations for instance the Institute of Hospital Quality Improvement and Accreditation, Bronze and Silver Universal Coverage Innovation Award 2004, Universal Coverage Partnership 2007.

Because of its reputation, the number of patients has been increasing every year. The hospital has provided medical care services for approximately 710,000 outpatients and 3,000 inpatients per year. The number of outpatient service visits at the hospital's primary care unit (PCU) has increased dramatically especially after participating into the Universal Coverage Scheme for the majority 48 million Thais. Intense workloads have resulted in several serious problems. Hence, the management team has to find appropriate strategies and solutions for not only the problems at hand but also conducting effective primary care services.

### **Participation into the Universal Coverage Scheme: A Starting Point of Primary Care Network Development**

Bhumiphol Adulyadej Hospital has been participating in the Universal Coverage Scheme (UCS) since 2001. The primary care unit of the hospital was established in October 2001 to serve population in five urban districts in Bangkok including Don Muang, Sai Mai, Laksi, Bang Khaen, and partial Lad Proa areas (Figure 2).



Trainings of students and personnel



The management team / leaders of the primary care service distribution project



Figure 2: Service areas

At the beginning, there were about 190,000 people eligible to receive health care services covered by the UCS at the hospital, resulting a dramatic increase in the number of out-patients at the hospital's primary care unit of up to 500 per day. Due to limited medical resources and infrastructure, the PCU was very crowded.

Due to overcrowdeness, it took clients more than 4 hours to wait for services. They felt very uncomfortable and dissatisfied with the hospital services. Undoubtedly, the hospital received massive complaints and those specific air-force obligations and main responsibilities in providing secondary and tertiary care services were enormously affected. Realizing about the hospital limitations and willing to fix these problems hospital director and administrators came up with an idea of building a network with private clinics to provide outpatient services based on contract in 2005. The project is officially called Bhumibol Adulyadej Hospital (BAH) primary care distribution.

The BAH primary care distribution project is the cooperation between public and private segments as a health network. The project is mainly aimed at providing primary care services, reducing patient overcrowd at the hospital's primary care unit, increasing PCU accessibility, and stimulating efficiency of health care network.

After carefully selecting suitable model, both hospitals and communities were prepared to put the project into practice. Primary health care



providers recognized problems and importance of project development, leading to their cooperation to better the services. Meanwhile, perception of people and health care providers towards health care settings and their communities were surveyed. The partnership was developed and the outsourcing process began. The Bangkok Branch of the National Health Security Office, overseeing the UCS, then announced and offered private clinics opportunity to participate into the project. Thirty-one private clinics submitting applications were evaluated on their capacities. Eventually, 26 private clinics were qualified to participate into the project launched in 2005.

Overall, 27 private clinics including 26 private clinics and an original BAH primary care unit have participated in this project since 2005. These clinics provide primary care services under the BAH supervision. Each clinic provides primary care based on the responsible areas assigned by BAH and NHSO as follows.

1. Don Muang: 8 clinics
2. Bang Khaen: 10 clinics
3. Lad Prao: 3 clinics
4. Sai Mai: 5 clinics
5. Laksi: 1 clinic

Hence, BAH has been distributing primary care services for people in responsible areas via 27 private clinics under the “cooperation between public and private segment suitable model” (or Public Private Partnership) since 2005. People are listed to each private clinic based on their residential registration documents. Nevertheless, people have their opportunity to choose their preferred private clinics by changing their registration within 6 months.

The principle of the public private partnership is to promote convenience, to ensure accessibility to primary health care services, to deliver high quality services, and to take full responsibility to all patients. Four public-private partnership steps were applied after 27 clinics agreed to participate in the BAH project. These steps included the standard primary care service trainings, assignment of areas and

clients to clinics, partnership contract, and quality assurance.

Before assigning the service areas to the private clinics, training sessions were provided to all registered private clinics to ensure quality of primary care services. The training topics included Advanced Cardiac Life Support (ACLS), infectious control, medical sterilization, customer services and nurse case management. BAH has been continuously providing sustainable professional development programs to health care providers of all clinics by updating their knowledge and skills in primary care settings, annually.

Population living in the BAH responsible areas are listed to 27 clinics based on their residential registration documents. At least 10,000 people are equally assigned to each clinic. Nevertheless, these people are able to move to their preferred clinic in the area. After the assignment, the contracting process began. The NHSO provided forms for all clinics to sign the renewable annual contract. The partnership program will be annually evaluated by Mahidol University. If any clinic performance does not pass the evaluation, the NHSO will secondly evaluate the clinic. Since 2009, BAH has eventually taken on the evaluation roles of all partnership clinics.

### **A Significant Decrease of Workloads and Improvement of Primary Care Services**

The cooperation between public and private segment model has been implemented for over seven years. Both BAH and network clinics work together to provide clients primary healthcare services every day from 8am to 6pm during the weekdays, and from 8am to noon during weekends. The services include general practice, specialty, chronic diseases, antenatal care, postpartum care, family planning services, and well-baby clinic. In response to UC benefits, the clinics provide health care services to serve increasing number of patients during a period of health care reform. Health care innovations have been promoted, resulting in the success of the health network. A





BAH network clinics and services

nurse working in Saha Clinic Soi Sai Yood said, “Our clients are very important. I am very happy and proud of myself working here. A reason is because I take this chance to help my clients easily access the primary health care, ensure equality, and decrease burdens of BAH.” She also explained how the clinic operated during the flood crisis.

*“During the floods, I was very happy that I could fully utilize my knowledge and experience as a professional nurse to help taking care of clients. I understand that everyone wants to be healthy so that they can deal with floods. I kept working without concerns about floods because I was sympathetic to my clients. At that emergency I felt that it was my responsibility” (Mrs. Kanitta Pethlert, R.N.).*

Eventually, the hospital overcrowd due to patients under the Universal Coverage Scheme have been significantly decreased from more than 500 clients/day to approximately 30 clients/day. The PCU is not as busy as it used to. Clients are satisfied with primary health care as they spend less than 45 minutes to receive the services.

Thanks to BAH standard and quality, clients’ satisfaction to primary health care services provided by clinics under the health network has also increased according to evaluation project in 2009. Six hundred and forty-three clients participated in this study; over 90% of respondents supported the strategies of the public private partnership project. More than 90% of clients were highly satisfied to accessibility to primary health care services. The main reasons were convenience and ability to access prompt care. Series of evaluation provided by the



The OPD and PCU at present

BAH partnership clinics were also found positive result. Health care providers could focus on providing optimal services to their clients with freedom to provide care under the BAH supervision without direct payment. The BAH had more time to providing the best care when low numbers of clients in the unit.

### Key to Success

Over the past 60 years, Bhumibol Adulyadej Hospital maintains the major hospital of the Royal Thai Air Force providing excellent medical care services to the military and civilians. The hospital is also a role



model in various aspects especially the “Cooperation between Public and Private Segment” or Public Private Partnership Model by creating a network among private clinics for providing comprehensive primary care services to patients under the Universal Coverage Scheme.

A success of the BAH primary care service distribution project depends on these following factors: *Policy, Empowerment and Support of the Chief Executive Officers*: The top administrators of both the National Health Security Office and BAH have strong determination and clear directions to solve the problems and raise the organization’s quality of services toward excellence. They provide good support and empower staff to run the project in all aspects regardless of finance, manpower, skills and professional development. Gp. Capt. Thaweepong Pajareya, M.D., a member of the project’s management team once said,

*“The important factor leading to the success of this project is the obvious support of the administrators...they give both the policy and authority to run the project. Moreover, the essential part of the success is that this project is run under the national policy and received the budgeting allocation with flexibility and appropriate amount. These help the health care providers to be able subsisted and participated in the project, continuously”* (Gp. Capt. Thaweepong Pajareya, M.D.).

*Cooperation of All Parties*: This project can be accomplished because of good cooperation among several organizations including NHSO, networking private clinics, community leaders and the BAH.

*Participation of the Personnel*: one of the essential factors is participation of the BAH staff, NHSO and networking private clinics. At the preparation phase, health providers of all parties were informed and trained by the management team of the NHSO and BAH in a bid to improve of recognition and cooperation to the project.

For the networking private clinics, the important factors leading to success for participating in the BAH project are the “team” and the “continuous development” of both staff qualifications and health

service quality. The owner of Saha Clinic Soi Sai Yood said,

*“The important factors the clinic success are our teamwork. We always improve our services and would like to give better care to patients just like the hospital. We take care of them as our relatives and try to give the best”* (Ms. Panatda Tinphangnga).

Similarly, one of the physicians said,

*“When providing health services, we won’t talk about the money. But we will focus on taking good care of the patients. Maintaining the personnel team is also important because they often resign from the clinics. We have found that running the clinic by an owner and developing the service quality continuously are important factors for the clinic success.”* (Gp. Capt. Chalermpon Boonsiri, Director of OPD).

It can be concluded that the BAH model by networking with private clinics is the distinctive successful model for distribution of comprehensive primary care services to Universal Coverage Beneficiaries. It can reduce overcrowd of outpatients in the hospital PCU, give more choices or access to efficient health care service network to people in responsible areas. Ultimately, satisfaction of health providers and patients to the BAH primary health care service distribution has also increased.

With the long history of provision of excellent medical services, BAH has built its reputation and numerous networks. It has both academic and health service networks at several medical institutes nationally and internationally. However, the hospital has not yet built health care networks with secondary hospitals. A network with the secondary hospitals needs to be established in order to extend specialty services for both out-patients and in-patients. Although the hospital can solve the problem of overcrowded outpatients in the PCU by contracting outpatient services system with private clinics, the overcrowded at specialty outpatient services and at inpatient units remained unsolved. In the future, cooperation with the NHSO for the hospital in a bid to





develop a model for extending secondary health care services by networking with public or private secondary hospitals. Overcoming these challenges will help Bhumibol Adulyadej Hospital maintain its philosophy, vision and mission.

## Acknowledgement

We would like to express our deep gratitude to the Chief Executive Officers of Bhumibol Adulyadej Hospital Air Vice Marshal Chuphan Chansmorn, Director, Gp. Capt. Suchin Boonma, Deputy Director, Gp. Capt. Tanehsak Wudhapitak, Deputy Director, Gp. Capt. Krittaporn Tawanchaeng, Staff Officer, Gp. Capt. Noppadol Verayangkura, Chief of Administrative Officer, Gp. Capt. Niphon Rutapichairak, Head of Health Security Office, and Gp. Capt. Sasinudda Rithapai, Director of Nursing Department for their warm welcome and support.

We would like to thank Gp. Capt. Thaweepong Pajareya, Director of Pathology Department and Subhead of Health Security Office, Gp. Capt. Chalernporn Boonsiri, Director of OPD, Gp. Capt. Nop Boonsiri Tuchinda, Chief of PCU, Gp. Capt. Krisada Sastrawaha, Chief of Cardiology Unit, Mrs. Nusaree Siripath, M.D. of Pathanaweck Clinic, Mr. Sanchai Huangkit, M.D. of Siripathana Clinic, Ms. Panatda Tinphangnga, the owner, and Mrs. Kanitta Pethlert, nurse director of Saha Clinic Soi Sai Yood for their kindness and comprehensive information.

Also, special thanks to all coordinators including Gp. Capt. Supit Prasopsil, Director of RTAF Nursing College, Wg. Cdr. Fongratana Tongwongleard, Head of Health Security Division, Wg. Cdr. Pensri Insuwan, Subhead of Health Security Division, Wg. Cdr. Kamolchanok Rukkittathum, Budget Officer, Flt.Lt. Orachat Klamcharoen, Public Relations Officer, and Flt.Lt. Siriwan Sutin, Nursing Officer of Health Security Office.





**Private Health Sector:  
Involvement is better  
than exclusion**



# Private Health Sector: Involvement is better than exclusion

Laiad Jamjan  
Yupaporn Pongsing



Primary health care unit in the hospital      Bass and his family

As a mother, it is heartbreaking for Siriporn Jukrajang to see her son Chaipat Jukrajang or Bass being admitted to the hospital more than 10 times in a year. Her two-and-a-half-year old son suffered from febrile convulsions after receiving vaccination two years ago. She and grandmother had difficulties taking care of the boy when his symptoms deteriorated. She decided to take her son to Kluaynamthai Hospital located nearby.

Thanks to help from nurses and the hospital staff, she and grandmother could learn how to provide proper care to the boy. Now, Bass has been discharged from in-patient unit, she said.

*“Thank you. Thank you. I highly appreciate the nurses and the doctors of Kluaynamthai Hospital. They help save my son’s life without any financial payment. I am not their relative but they cure and take care of my son until he is much better. Now my family members are so happy.” - Mrs. Siriporn said.*

Bass is one of 132,480 participants listed under the Universal Health Coverage (UC) Program at Kluaynamthai Hospital.



The purpose of the UC system is to enable majority 48 million Thais have equal access to quality health care.

The National Health Security Office (NHSO) overseeing the scheme continuously encourages private hospitals to participate in the UC scheme to help shoulder workloads of state hospitals.

A total of 71 private hospitals nationwide joined the UC system during the beginning period in 2001. However, many private hospitals faced funding problems. Their owners claimed the government provided them insufficient budget compared to increasing workloads caused by the UC clients and that they decided to withdraw participation into the program. By 2010, only 49 private hospitals have remained participating into the scheme according to the NHSO report.

*“Our hospital is one of the first private hospitals participating into*



Mr.Sranyoo Chanate,  
Vice President

*the UC scheme from the very beginning. I am so proud of our national health care system because Thailand is only among a few countries where all citizens can have access to health care. How lucky we are.” - Mr. Sranyoo, Vice President of Kluaynamthai Hospital.*

## Getting to know Kluaynamthai Hospital

Kluaynamthai Hospital was founded in 1973 by Poolchai Chanate. It was named after its location, the Kluaynamthai district of Bangkok. Kluaynamthai literally means “banana tree”. The area was in the past full of banana grove. The hospital is a family-owned business and run by the second generation of the Chanate family.

*“My Dad is a Buddhist. He has a strong belief that mercy sustains the world and that compassion for others helps create the better country*



*“Mercy sustains the world”* was engraved on the base of Mr. Poolchai Chanate statue

*and the better world for people to live with happiness. That’s why he decided to share the burden of health care service and established the hospital. My dad also gave me the name Sranyoo means who is always pleased to help other people. His honored idea has influenced us greatly in how we run our business for public benefits,”* said Mr. Sranyoo.

The hospital vice president also said he decided to participate into the UC scheme because they had experience from previously joining the Social Security Scheme providing services for about nine-million employees in the private sector. Therefore, he knew how to manage funding from different health care schemes

in order to support community hospitals. Funding management is essential for providing health services to meet the need of clients.

## **Challenges in providing health care services under the universal health care scheme**

Limited funding is a major concern for many private hospitals participating in the Universal Health Care scheme. The budget granted to both private and state hospitals based on capitation system at 1,308 baht per person/year was relative low and insufficient. Therefore, budget management is a challenge for hospitals to develop specific strategies to run the system work under financial constraint situation.

*“The philosophy of the hospital is that we care for clients like we are caring for our own family. Not for money, but for happiness of our clients and their family members.”* said Mr. Sranyoo.



He said it was challenging to provide health care services with limited funding and to ensure that clients under the UC scheme would receive an equal medical service and standard to others.



Unlike other private hospitals, Mr. Sranyoo however saw the UC scheme as an opportunity apart from budget per head from patients under the scheme, other financial earnings such as donations, patients who can afford to pay out-of-the pocket, private health insurance, enabled his family to run the hospital business effectively without much financial constraint.

Database on private health insurance covering some of the patients under the UC scheme is also available. So hospital staff could effectively deal with financial paper works to help absorb health care cost, he said.

The hospital also works with primary healthcare providers to monitor emerging disease and chronic illnesses that may affect health care services particularly among the elderly.

There are also 12 clinics under the hospital network located in the district. These clinics provide outpatient services in a bid to not only reduce patient overcrowd at the hospital but also enable patients to receive health services at nearby clinics instead of coming to the hospital following the so-called “Klai Ban Klai Jai” initiated by the



Provided health care services at primary health care unit of the hospital

National Health Security Office overseeing the UC scheme.

*“The more network clinics we have, the better patients can remember*



*our hospital services. Our staffs do not only provide clients health services near their houses, but also work as public relations. If we have more clients to visit our hospital, we should have more money to offset our fixed cost.” said Mr. Sranyoo. “Having limited budget from the UC Scheme does not mean decreasing the number of nurses or using cheap medications to reduce the cost. It means providing service that meets the basic standard just like a sandwich that has a good mix of quality ingredients and still has a good favor.”*

### **Take good care of clients like family.**

The use of capitation payment to control the cost of health care system may have negative effect on health care quality which is a major concern for the National Health Security Office (NHSO). Therefore, the agency set up an independent quality assurance organization to accredit the quality of care for each hospital. The Hospital Accreditation



Network clinic at Sukumwit 93



Network clinic at Sukumwit 101/1

(HA) is also accepted as a basic requirement for hospitals expressing interest in participating into the UC scheme.

Dr.Suvinai Busarakamwongs, Director of Kluaynamthai Hospital, said medical staff felt good to work at the hospital because there was only a high standard of care for patients of all levels and that they could treat their patients as they were supposed to. Teleconference was also available for general practice at network clinic to consult specialists at the hospital.

Providing a high quality of care to UC patients with limited budget is vital.







Dr.Suvinaï  
Busarakamwongs,  
Director

Ensuring quality of care to meet clients' needs and satisfaction also needs to be taken into account and respected. In 2011, the hospital received the "Best Practice for HIV Patients" award from the NHSO Bangkok district 13 in charge of providing care for people in the UC system in the area of Kluaynamthai district. Moreover, the hospital also is accredited by Healthcare Accreditation Institute.

*"The concept of providing care for patients like they are family members is what the nurses are supposed to do. It may be too abstract to understand easily. However, the way we make it work is very simple. What we do is to treat our clients as individuals, to know who they are and what they need specifically. By talking to them, we will know them pretty well and know how to help them. We also have the Virtual Hospital at home that enables us to take care of patients at network*



Take good care of clients like family

*clinics to reduce crowdedness at the hospital. I am so proud of being a nurse here."* – Ms. Jarunee Kusuwan, hospital nurse.

The idea of health promotion and prevention is established in a bid to decrease illness and hospitalization as well as to increase quality of life among people. Health promotion and prevention services at the hospital include both inside and outside services for example Pap smear test, hypertension and diabetes mellitus clinics.

Ms. Jarunee said women were invited to hospitals or mobile clinics for having Pap smear test free of charge. If cancer-like symptoms was



Ms. Jaranee Kusuwan,  
Managing director of clinic  
network



Hospital nurse team

diagnosed, a counseling team would be available to explain the test for clients and how they should proceed the treatment. Some cancer patients also volunteered to peer other patients on how to take care of their health after cancer was diagnosed.

Ms. Kanjana Chinsuntia also works for health promotion and prevention. The targeted clients may not be the same group of people depending on treatment. She accepted it was very difficult to form a relationship with urban people.

“If you knock their door, they might ask you what things you want to sell. We have to find out who the gatekeeper or leader in that area is so that we can make connections from there,” she said

The nurse however said it was important to keep in touch with the community since the leader of each area might change from time to time depending on their interests.

Since most of the people staying at home in the community were the elderly, various groups for example, Tai Chi, running, chronic diseases are also set up in a bid to encourage their participation in to health promotion activities. It was very difficult at first but later it became





Health promotion and prevention Team



Home visit

easy, she said.

### **Information and Communication Technology (ICT) as a key support system**

Kluaynamthai Hospital has developed an information system to share data with hospital/clinic network across Bangkok in order to support their services, to meet their clients' needs, and to monitor budget expenditures among the various clinics.

Ms. Jarunee said the hospital used ICT to support staff work. Emergency cases can go to network clinic or hospital because their health



Health education



Promotion practice

information is available online. Such system was very helpful as it enabled health care staff to provide proper care and helped decrease a risk of health complication among patients.

The hospital also adopted teleconference consultation for use in a bid to decrease delayed treatment. General practitioners in the remote clinic site can consult directly with specialists at the main hospital.



ICT, a key support system



Medical Video Teleconference (MVT)

In case that medical specialist needs to see a patient, Medical Video Teleconference (MVT) is also available to do so virtually. Such medical technology is very useful and efficient. It does not only support medical practices but also ensures rapid and convenient access to the proper diagnostics and treatments for patients.

Innovative information system was also developed for use to gather the data related to the cost of services provided under universal health care coverage. So cost-efficiency can be analyzed and monitored for financial sustainability in health care services.

*“We use our online database to collect relevant information for each clinic. Therefore, we can monitor and know the cost of care at each clinic every day. We know what the main cost of care is and we can solve financial problems that may occur in a timely manner”.* Ms. Jarunee says.

### **Challenges facing universal health care in urban setting**

Separating budget of curative care as well as health promotion and prevention makes it difficult for the hospital to promote holistic care. Community clinics still focus more on providing treatment, rather than health promotion and prevention. Moreover, there is an overlapping of services provided by different agencies that may offer health care to the same group populations. Without communication and collaboration between involving agencies, some people may not be able to receive needed medical care.





Used ICT to support staff work

People who live in an urban setting like Bangkok have diverse backgrounds regardless of ethnicity, culture, language, religion, income, education or living styles. Promoting health prevention program in an urban area such as Bangkok to meet the health care needs is not an easy task. Comprehensive strategy must be carefully designed and implemented to develop facilities and support health professionals to work in the urban setting. So the program would truly be beneficial for urban population.

As people listed under the UC system are so diverse and still may not clearly understand what benefits are provided, thorough explanation for patients would also be useful when coming for receiving services.

### **Lessons learned from Kluaynamthai Hospital**

The model adopted by the hospital demonstrates that private hospitals can also successfully participate into the UC scheme. However, a good mix of different financial sources is required to run the hospital effectively and efficiently. In addition, internal communication, planning, and dedication to high quality services are also crucial. ICT plays a vital role in tracking, planning, and managing health care funding as well as supporting medical practitioner in providing health services for patients. Moreover, a Buddhist teaching of “mercy sustains the world” running in the “Chanate” family is the key to the hospital

success in participating into the UC scheme for public health benefit among Thais.

### **Acknowledgement**

Special thanks to staffs of Kluaynamthai Hospital for sharing their stories, especially Mr. Sran-yoo Chanate, the vice president, Dr.Suvinai Busarakamwongs, the hospital director, Ms.Jarunee Kusuwan, managing director of clinic network.







## Engaging Community Organizations in the Management of Universal Health Care Scheme: Tam- bon Muang Mai



# Engaging Community Organizations in the Management of Universal Health Care Scheme: Tambon Muang Mai

Achara Suksamran  
Orarat Wangpradit

Today people are increasingly concerned about taking care of themselves and their community. When local authorities and community partners work together, any problem, even issues related to public health may be dealt with effectively.

A Muang Mai case has proved that a strong sense of community belonging is the essential component for this powerful form of a positive partnership to function. Residents often participate within the structure of community organizations and get involved in projects and activities, such as the monthly volunteering activity, “Long Kaek Long Klong”. During these volunteer campaigns residents from different villages may meet for the day to help restore a canal by cutting grass, collecting garbage and removing invasive water hyacinths to allow the free flow of water thus eliminating the health hazards associated with stagnant water.



A monthly community activity, “Long Kaek Long Klong”



Apart from community activities the Muang Mai sub-district (known in Thai as “Tambon Muang Mai”) gets involved with community organizations in managing universal health care coverage (UC).

### Muang Mai at a Glance

Tambon Muang Mai is located in the Amphawa district of Samut Songkram province about 80 kilometers west of Bangkok. The district has a rich and beautiful cultural heritage. Communities that stretch along the Amphawa Canal are known for being the “Venice of Thailand”. Residents of Tambon Muang Mai are mainly fruit farmers. These



Amphawa Canal, the “Venice of Thailand”



plantations produce fruit such as coconut, banana, lychee, and grapefruit. Tourism is the other significant alternative for the local economy. River sightseeing by boat along the Kwai Noi stream and Mae Klong River is one of the popular attractions in addition to the practice of local people who provide lodging to visitors through home stays.

The total population of Tambon Muang Mai in 2011 is about 4,155

people. All are Buddhists. An average annual income per person is approximately 35,000 Thai Baht (US\$ 1,100).

Tambon Muang Mai is administered by Muang Mai Municipality Administrative Organization and Muang Mai Tambon Administrative Organization. These two local bodies work collaboratively with coordination of the village chief known in Thai as 'Kamnan', Suthep Peng-Udom. The chief and leaders of Muang Mai residents usually bring the two local bodies to work together.

For the People of Muang Mai there is strong participation in community activities such as the village health volunteer group, the senior citizen club, the village council, and the community organization network center.

In terms of public health, Two Tambon hospitals that promote public health are available for the needs of local people. The ratio of a public health personnel per population is 1:411 in the municipality area and 1:525 outside the municipality area.

## Background and Development of Muang Mai Health Security Fund

Since the introduction of the Universal Coverage (UC) scheme in 2001, personal prevention and promotion services have been regulated and funded by the National Health Security Office overseeing the UC scheme. Public health programs remained under MOPH management and some of the responsibilities were transferred to local governments.

Local Health Security Fund is established to promote community involvement. Funding is managed by an executive committee comprising of representatives of all sectors in the community following decentralization purpose. Village people identify their own problems often better than those living outside and therefore work to develop specific health initiatives based on local contexts and needs as shown on figure 1 and 2, for instance.

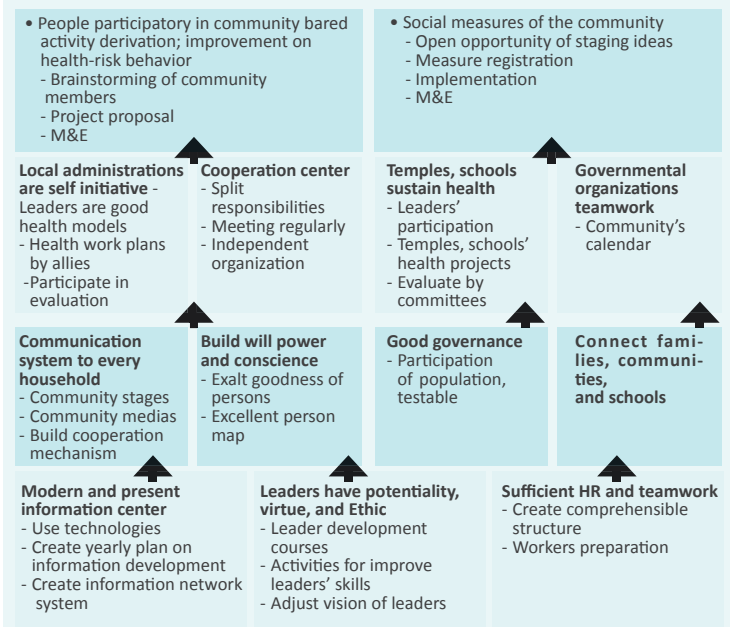
In 2006, Muang Mai municipality was chosen to be a pilot area to



**Figure 1. Health Development Destination of Muang Mai by 2011**



**Figure 2. Health Development SRM of Muang Mai by 2011**



implement the community health fund. Co-funding was provided by the NHSO and the local office of government administration. The executive committee members of the community health fund were selected based on an agreement that he/she must have time to work for the funding program while meeting their existing responsibilities. The executive committee consists of the Mayor of Muang Mai Municipality, the municipal clerk, the Director of Muang Mai Tambon health promotion hospital, two members of the municipal council, two village health volunteers, and five village representatives. Upon starting, the committee of the community health fund learned how to manage the fund using a template of the Baan Prok community health fund in neighboring province of Samut Songkram.

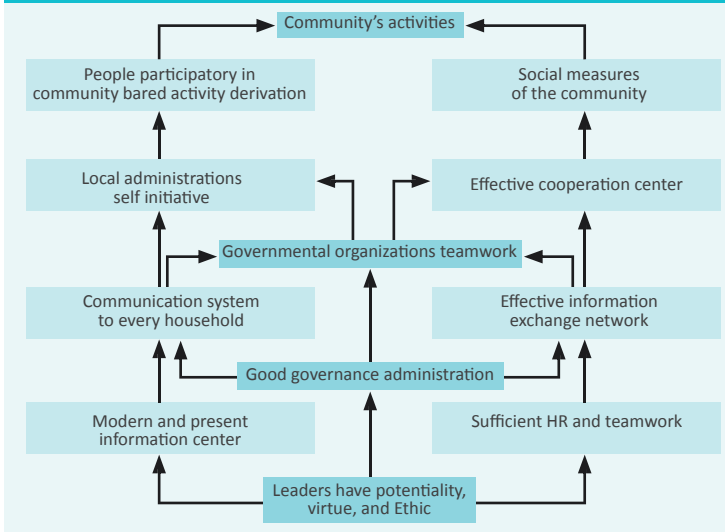
A year later, Muang Mai Tambon Administrative Organization started to participate in this project together and established another community health fund in the responsible area.

With the availability of community health funds, actual community participation increased and a shift from service-oriented to development-oriented approach is achieved, thus creating a more sustainable system. Tambon Muang Mai experienced some challenges implementing the decentralization concept into practice. As a remedy a strategic route map has been adopted as a tool for project planning and managing the community health fund since 2008.

In addition, Tambon Muang Mai established the community organization network center. Suthep Peng-Udom known among the local residents as “Kamnan Suthep” has been elected as a team leader



**Figure 3. Health Development Strategic Linkage Model (SLM) by 2010**



of the center and also the coordinator of both community health funds. Members are comprised of representatives from the local municipality, the Tambon administrative organization, other government organizations, community leaders, and other civic groups from the community. These are the stakeholders who have actively cooperated in the strategic plan. This core team moves forward health projects and activities within the community.

At the heart of the route map is the concept that each community has the capacity to care for their own to ensure sustainability of not only primary health care but also their own environment and society. Train-



Community organization network center, core team

ing programs are available for both health staff at the primary care unit and local residents as well. This provides community residents the opportunity to play an active role in public health promotion.

Currently, as the National Health Security Office (NHSO) requires each community to come up with a route map as a work plan for funding management. Muang Mai is an outstanding example of a community successful in applying a strategic plan that gets health objectives into



People of Muang Mai strongly participating in developing SRM

practice. Currently, several guidelines for health-related issues have been developed, including dengue fever, environmental sustainability and restrictions of chemical use, strengthening good relationships



in the family, and the surveillance of H1N1 strain of influenza are available for communities to use in these campaigns. An example is shown on figure 4-5.

Since 2008, several projects extending from these efforts have been initiated by Muang Mai community; in particular the two initiative projects concerning rehabilitation for people with disabilities and education around breast self-examination skills. Village health volunteers

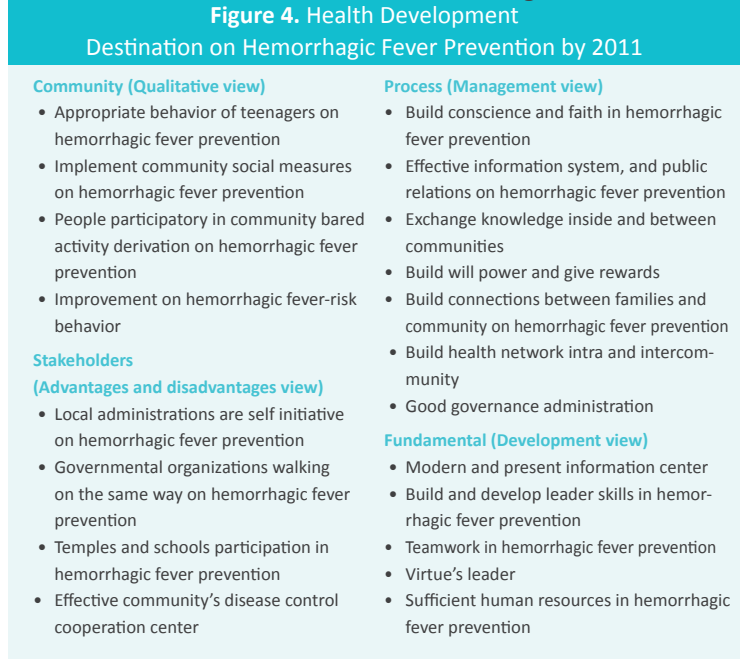
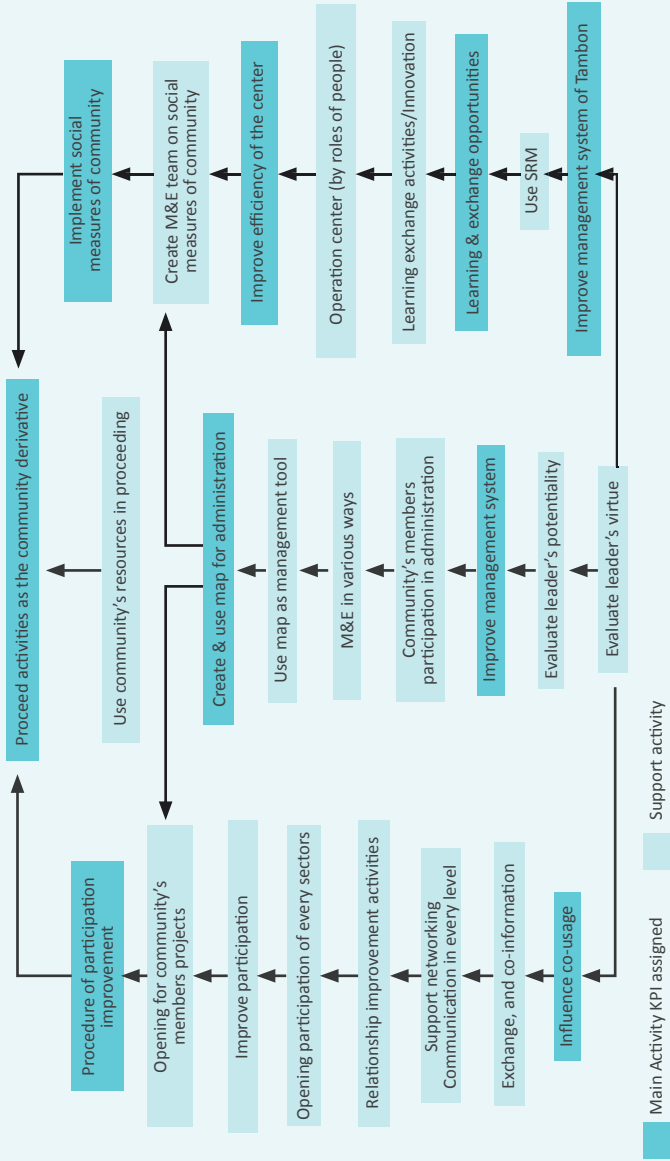


Figure 5. Health Development SLM of Hemorrhagic Fever Prevention of Muang Mai by 2010





are trained how to better look after people with disabilities and help teach family members of the disabled additional skills as caregivers.

For the breast self-examination initiative the project focuses on women (age 35). Doing breast self examination regularly is one way for women to know how their breasts normally look and feel and to notice any changes that may be a sign of breast cancer. The goal is



professional right away.

In addition, activities aimed at promoting behavioral change and good health are also carried out for example the so-called “eat hot food, use a serving spoon and wash hands”, a campaign for good eating habits, hula hoop and massage for health as well as the Hemorrhagic Fever Prevention.

Today, Muang Mai residents still have actively working to achieve their strategic goals. They are proud of their community, their community leaders, community unity, and especially their working strategic route map. There is no doubt that the community has had success in creating a better public health management system and being a “successful



Various health promotion projects

model of engaging community organizations in the management of universal health care”.

### Acknowledgement

This manuscript could not have been completed without useful information and wonderful cooperation from community organizations and people of Muang Mai. Special thanks to: Muang Mai Municipality Administrative Organization, Muang Mai Tambon Administrative Organization, Baan Klong Muang Mai Tambon health promotion hospital, Muang Mai Tambon health promotion hospital, National Health Security Office region 5 (Ratchaburi), and Muang Mai Health Security Fund

---

**With the cooperation of :**

Bang Yai Hospital

Bhumibol Adulyadej Hospital

Central Chest Institute of Thailand

Faculty of Medicine Ramathibodi Hospital, Mahidol University

Kluaynamthai Hospital

Lam Sonthi Hospital

Muangmai Sub-district Health Promoting Hospital

National Health Security Office

Phra Na Khon Si Ayutthaya Hospital

Phra Na Khon Si Ayutthaya Provincial Health Office

Social Security Office

Boromarajonani College of Nursing, Bangkok

Boromarajonani College of Nursing, Chonburi

Boromarajonani College of Nursing, Chang Wat Nonthaburi

Boromarajonani College of Nursing, Nopparat Vajira

Phrapokkiao Nursing College, Chanthaburi

Saint Louis College

Sirindhorn College of Public Health, Chonburi

---





Health Systems Research Institute (HSRI)  
Ministry of Public Health  
Tiwanon Road, Nonthaburi 11000, Thailand  
Tel. 662 832 9200 Fax. 662 832 9201  
e-mail : [hsri@hsri.or.th](mailto:hsri@hsri.or.th)  
website : <http://www.hsri.or.th>