

THE JOURNEY OF UNIVERSAL ACCESS TO ANTIRETROVIRAL TREATMENT IN THAILAND



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**COOPERATION ON
UNIVERSAL HEALTH COVERAGE**

A ROAD TO AN EQUITABLE AND HEALTHY SOCIETY



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LIST OF ACRONYMS AND ABBREVIATIONS

AEM	AIDS Epidemic Model
AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
ARV	Antiretroviral
AZT	Zidovudine
CAT	Collaboration of AIDS and TB
CL	Compulsory Licensing
CQI	Continuous Quality Improvement
CSMBS	Civil Servant Medical Benefit Scheme
DPHO	District Public Health Office
EQA	External Quality Assurance
EWIs	Early Warning Indicators
GPO	Government Pharmaceutical Organisation
HAART	Highly Active Antiretroviral Therapy
HCT	HIV Counselling and Testing
HIV	Human Immunodeficiency Virus
HSRI	Health System Research Institute
KPI	Key Performance Indicators
LA	Laboratory Accreditation
M&E	Monitoring and Evaluation
MoPH	Ministry of Public Health
NAC	National AIDS Committee
NAP	National AIDS Programme
NAPHA	National Access to ARV Treatment Programme for People living with HIV/AIDS
NGOs	Non-Governmental Organizations
NHSB	National Health Security Board
NHSO	National Health Security Office
PEP	Post-Exposure Prophylaxis
PHIMS	Perinatal HIV Intervention Monitoring System
PMTCT	Prevention of Mother-To-Child Transmission
PPHO	Provincial Public Health Office
PR-DDC	Principle Recipient-Department of Disease Control
SQCB	Standard and Quality Control Board
SSO	Social Security Office
SSS	Social Security Scheme
TB	Tuberculosis
TUC	Thailand Ministry of Public Health - U.S. Center for Disease Control Collaboration
UC	Universal Coverage
UCS	Universal Coverage Scheme
UHC	Universal Health Coverage
VCT	Volunteer Counselling and Testing
VMI	Vender Managed Inventory

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FOREWORD

Today, Thailand's universal health coverage (UHC) is a role model for many countries that are pursuing UHC as part of efforts to achieve the Sustainable Development Goals (SDGs). The Thai model has proven to save lives, prevent impoverishment, reduce inequalities and accelerate human development. In other words, Thailand has demonstrated to the world that UHC can be a promising national development strategy that respects, protects and fulfils fundamental human rights, and advances health equity and social justice with cascading human development gains that last over generations. It has also generated hope that achieving effective, affordable and equitable UHC using public finance is possible even in resource-limited countries.

However, such a vision is not realised overnight. It requires decades of continuous efforts by the government, civil society and development partners; strong political commitment and a clear national vision; pro-equity/pro-poor policies and systems; and sound governance structures in place.

Thailand's experience with providing universal access to HIV antiretroviral treatment (ART), as part of its evolving universal health coverage, also presents an opportunity to guide other countries through useful insights and practical lessons.

It is noteworthy that Thailand's commitment to UHC and ART has reached a milestone in 2016, where the country became the first in the Asia-Pacific region to have eliminated mother-to-child transmission of HIV. This is a significant step forward towards achieving an 'AIDS-free generation' as aspired to by the UN Secretary General.

Although there is no 'one size fits all' solution, the principles of human rights, health equity and social justice that have shaped and are manifested in various aspects of the Thai UHC have universal applicability to the SDGs, well beyond HIV and health. In particular, Thailand's special attention and dedicated investments to address the unique needs of people living with and affected by HIV, who are among the most marginalized and excluded in society, teach us how to turn into practice the central principles of the 2030 Sustainable Development Agenda - to 'leave no one behind' and 'reach the furthest behind first.'

The United Nations Development Programme (UNDP) is committed to addressing major health challenges based on the principle that health is both a driver and outcome of development. UNDP focuses on addressing the social, economic and environmental determinants and governance of health that are primarily responsible for health inequalities. We explicitly prioritize the most marginalized or vulnerable, work in partnership with the government, civil society, and development partners, and facilitate South-South collaboration. This report is a reflection of these commitments.

This report is an updated version of a document that was disseminated in limited circulation at the 11th International Congress on AIDS in Asia and the Pacific held in Bangkok in 2013. With a newly-added chapter focusing on the pro-poor and equity aspects of Thai UHC, I hope the report will help inspire countries to make an ambitious, rights-oriented approach to universal health coverage a reality.

(Signature and Name)

UNDP Thailand

EXECUTIVE SUMMARY

Dr. Taweasap Siraprasiri
National AIDS Management Centre



The Universal Coverage Scheme is considered a reform of the national health system that has made “access to healthcare” a fundamental right of every Thai citizen



The Universal Coverage Scheme (UCS) was launched in addition to the Social Security Scheme (SSS) and the Civil Servant Medical Benefit Scheme (CSMBS) to extend coverage to previously uninsured populations and reach 100 percent health coverage of all Thais. **The UCS is considered a reform of the national health system that has made “access to health care” a fundamental right of every Thai citizen.** Hence, it is the duty of the government to facilitate standard medical care services for everyone.

At the beginning, the UCS covered people living with HIV and AIDS patients only for the treatment of opportunistic infections (OI) and the prevention of mother-to-child transmission (PMTCT) of HIV. However, the government lacked the confidence to include ART in the benefit package due to the high cost of antiretroviral (ARV) drugs that could have adversely affected the financial sustainability of the entire UHC programme.

The Department of Disease Control (DDC) introduced ART to PLHIV and AIDS patients for the first time in 1992 and have since continually developed ARV drug regimens, treatment protocols and essential care services. At the beginning, the number of patients who obtained ART was relatively low. Most of them accessed services through clinical and research networks that had very limited capacity and budget constraints. Until the Government Pharmaceutical Organization (GPO) was able to locally produce an effective fixed-dose combination of drugs regimen at a low cost in 2002, the DDC in collaboration with networks of academics, civil society and PLHIV started to mobilize additional budgets and resources to increase access to ART.

The goal was set to increase the target number of ART coverage in each year from 3,500 to 8,000, 20,000, 50,000 and 80,000 people per year, and to finally integrate ART into the UHC benefit package within 5 years. At the same time, the capacity of health care personnel, the medical service system and the laboratory network was built to ensure the quality and availability of services at different levels nationwide. **Eventually, ART was fully integrated into UHC in 2006**, and jointly managed by DDC and NHSO. The programme was fully transferred to NHSO at the end of 2007.

HIV treatment and care services under UHC involve key components of activities that include benefit

package design; health service standardization based on the national strategies and guidelines; capacity building for health care personnel and the service system; establishment of physicians and laboratory networks; drugs procurement and supply; drugs inventory management; payment design and reimbursement; information system management; treatment monitoring and evaluation; and financing.

NHSO manages the HIV care budget which was designed as an additional payment to service providers on top of the capitation payment. The vertical programme with this centralized HIV care budget and management system allows people to access to care and treatment services from anywhere in the country.

The HIV care budget under the UHC is allocated for direct payment of service reimbursement and capacity building to increase access to and the quality of services. The annual budget was maintained at approximately US\$100 million over a period of 6 years even though the number of patients receiving ARV treatment increased from 116,000 in 2009 to 174,000 in 2013.

The Universal Access to ART Programme is also supported by the quality improvement and assurance of both laboratories and treatment services. Laboratory services consist of (1) the basic HIV test and laboratory and (2) the HIV laboratory which performs specific HIV tests such as CD4 counts, viral load testing and monitoring of drug resistance. All laboratories must be registered and accredited by NHSO with consideration of personnel, venue, facilities and equipment, quality assurance and continuous capacity building. In terms of treatment services, HIV Qual-T has been applied to ensure coverage and quality improvement on key treatment services such as drug adherence, laboratory test, disease screening and OI prophylaxis. It was well accepted and also integrated into the hospital accreditation system.

Monitoring and evaluation (M&E) are important tools in the development of the programme and services with evidence-based information. The monitoring system in the programme covers three components: input factors, service processes and results. The system applies important tools and data from four databases: the ART facility survey, the NAP system, the HIVQUAL-T system and the epidemiological surveillance.

To obtain key information, the monitoring system follows the cascade of HIV services from the start of registration, HIV counselling and testing (HCT), reporting of HIV positive results, ART access, laboratory tests to the detection of any complications and loss of life. Evaluation is performed periodically to assess outcomes both in terms of efficiency and effectiveness. The results can be leveraged for the

improvement of services at the programme level as well as the health care service level.

The information system for the Universal Access to ART Programme has been developed to support the recording of patient benefits, laboratory test results and ART access data from the beginning of counselling and testing until the case of deaths, the concept of which is similar to the M&E framework. The so-called NAP (or NAP-Plus) application is an online, real-time information system connected with health service units across the country. The main menus include registration, HCT, PMTCT, laboratory testing and M&E. The system is also linked automatically to other key databases related to the UCS such as the reimbursement system, the vendor managed inventory (VMI) of drugs, condom distribution, and civil registration which sends updated information immediately when there is a notification of death. **The unique feature of NAP is the protection of confidentiality** through encrypted identification (ID) numbers and the restriction in the level of data access based on the key roles and responsibilities of the users. NAP also harmonizes the demand and supply of the data which are acquired for service improvement by health service providers, for programme monitoring by programme managers, and for reimbursement, supply-chain and inventory management by the system manager.

The experiences of ART services of adults at provincial-level hospitals found that the keys to success include capacity building for multidisciplinary teams (medical doctors, nurses, counsellors, pharmacists and laboratory technicians), the designation of an HIV coordinator position at all levels, participation of a network of PLHIV in the service provision, appointment of regional HIV experts, precise national guidelines, the establishment of a laboratory network, VMI system for drug supply, the information system (NAP), a quality improvement support system for laboratories including HIV testing, CD4, HIV viral load and drug resistance tests, M&E, and media and advocacy mechanisms for the promotion of ARV drug adherence.

In the case of ART services for children living with HIV, there are complex issues in terms of treatment, the social dimension and child development at different ages. This therefore requires specialized and children-friendly clinics with highly skilled specialists at the start of the programme. Moreover, social activities and the capacity to refer cases to community hospitals closer to children's homes are necessary in the long term.

ART has brought back healthy, meaningful and productive lives to people living with HIV and AIDS who had lived without hope in the past. It energizes HIV positive people with confidence, pride and

dignity. Trials and errors experienced by PLHIV has been used to develop an advocacy strategy to see the Universal Access to ART programme in Thailand leap forward in progress. Some strategies were born out of the knowledge and experiences of HIV positive people, some of them came from lessons learned and recommendations from the involved partners.

The key strategy, summarized by the PLHIV network, is to achieve a comprehensive continuum of care including:

- (1) Disclosing one's HIV positive status and engaging in the ART programme
- (2) Attempting to sustain and institutionalize the ART programme
- (3) Partnership and collaboration with various organizations for strengthening ART services, structures and systems
- (4) Fighting stigma and discrimination
- (5) Leveraging lessons learned and sharing best practices.

The DDC has continued to play an important role in the control of diseases at the national level with the National AIDS Management Centre serving as the secretariat of the National AIDS Committee taking the lead in the formulation of policy and coordination with various organizations in an effort to curtail the HIV epidemic in Thailand.

The Bureau of AIDS, TB, and STI of the DDC has academic and technical roles to work with specialized agencies and relevant experts on guidelines development and standardization of HIV prevention, care and treatment, and conducting research for the development of relevant health care services. Moreover, it has supported the improvement of laboratory quality and quality assurance for HIV care and treatment services. Currently, DDC also supports harmonization of ART provision through three public health insurance schemes to ensure the equitable entitlement to health care of a similar standard for all Thais.

Success in Thailand was a result of several combined factors. They include the systematic development of the ART programme, the UHC policy, the strong capacity and infrastructure of public health system, a well-designed financing system, the ability for domestic manufacture of low-cost ARV drugs, compulsory licensing, multistakeholder participation, and resource mobilization from both international and domestic sources. Most importantly, people living with HIV have been involved in the programme.

The Universal Access to ART Programme has brought several positive changes to the Thai public health system – for example, the cutting-edge online information system, more efficient inventory management, and a drug procurement system through Vendor Managed Inventory which ensures an adequate supply of medicines is available at health care units nationwide. Other positive changes are task shifting and the participation of multidisciplinary groups as solutions to health workforce shortage, and the discovery of innovations for quality control and effective health service outcomes.

Challenges that still remain for UHC in Thailand include access and coverage of ART for non-Thai-citizens, ARV drug resistance, shortages in the health workforce, and fighting misconceptions related to ART.

“

ART brought back healthy, meaningful and productive lives to people living with HIV who had lived without hope in the past.

”

CHAPTER 1

Pro-poor and Equity-oriented Universal Health Coverage: Perspectives from Thailand

Thailand Universal Health Coverage: Principles, History and Evolution

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1. BACKGROUND

The previous chapter provided an overview of Thailand's Universal Coverage Scheme (UCS) with a brief introduction on the development of the UCS benefit package for HIV care and treatment. This chapter will explore Thailand's universal health coverage from the perspective of equity. To achieve health coverage that is truly universal, health policies and systems that explicitly address the needs of the most marginalized and excluded are indispensable. But this is often neglected or downplayed in most developing countries. The journey of universal access to ARV treatment in Thailand is an important story, and an excellent case study for the rest of the world, and in particular developing countries. A range of pro-equity policies have been part of it.

This chapter explores how equity-oriented universal health coverage has evolved in Thailand. It reviews the design and implementation of the scheme, and how the scheme addressed issues such as improving utilization, equity and financial risk protection. By doing so, the chapter also provides a broad context to help readers better understand subsequent chapters on universal access to antiretroviral therapy (ART) in Thailand.

The right to health services is clearly mandated in Thai constitutions, including the 1974 Constitution (Article 92), the 1991 Constitution (Article 83), the 1997 Constitution (Article 52) and the 2007 Constitution (Article 51), which states that '[a] person shall enjoy an equal right to receive appropriate and standard public health services, and the indigent shall have the right to receive free medical treatment from public health centers of the State'.

In response to these Constitutional mandates, health policy and programmes have been deliberately designed to benefit Thailand's poor and rural population. For example, in 1975 free health care was introduced for low income households to facilitate access to health services for the poor.¹ This programme was later extended beyond the poor to other vulnerable populations including persons with disabilities, children under age 12 and the elderly.

But free health care for the poor should not be a right only expressed on paper or in political statements. For it to be implemented, quality health services must be available and responsive to the people. In the 1980s, it became national policy to develop rural health service systems through establishing a hospital in every district throughout the country.² Total coverage of all 600 districts with fully functioning district hospitals was achieved in the 1990s. In the following decade, the Thai Ministry of Public Health (MOPH) strengthened health centres in all 8,000 sub-districts (tambon) throughout the country, by upgrading small midwifery centres to fully functioning health centres, or constructing new ones.

Attention to rural health dates back to the early 1970s and continues today. In 1972, a programme was introduced for all medical graduates where they mandatorily performed three years of rural health service. Mandatory health services for other new graduates such as nurses, dentists and pharmacists were subsequently introduced.³ Mandatory rural service is supported by other comprehensive health workforce policies including

financial incentives such as a hardship allowance and the recruitment of rural students for training and hometown placement.⁴

Policies have also been implemented to ensure that there are a sufficient number of health care professionals for rural health care. The MOPH runs colleges for professional nurses and other paramedics such as dental nurses, pharmacy assistants and public health sanitarians. Since 1974, Thailand has had special tracks for recruiting rural students to medical and nursing careers in return for allowing them to work in their home communities. Medical students recruited through these methods were demonstrated to have equal clinical and public health competencies as students recruited through the mandatory national licensing examination. In the early 1980s, to address the need for health care professionals in district health systems, a system was introduced where nurses received a diploma after two years of courses, completed four years of mandatory rural service, and then did two further years of training to obtain a Bachelor's degree. This temporary policy helped increase the number of nurses in response to the expansion of district health systems in the 1980s.

The district health system (DHS) was developed, beginning in 1978, to ensure that health care reached all Thais, by covering all districts. The DHS

consists of district hospitals and sub-district health centres. It is the main platform for the creation of an integrated health service, including curative care, health promotion, disease prevention and control, surveillance, and other community-based public health programmes and campaigns.

Focusing on the development of the DHS represented a deliberate pro-poor policy to ensure equitable access to health care for all citizens. The focus of the programme is on rural districts, and the majority of Thailand's population live in rural areas. District health services facilitate the poor to use health services by being easily accessible by the rural population (the DHS is referred as having 'close-to-client services').

The rural population is often less wealthy than their urban counterparts. Government health services can be used as an instrument for poverty alleviation and income redistribution (through in-kind health service provision). Benefit-incidence analysis is a tool to assess how public spending on health care is distributed across population groups, who gains most and who is disadvantaged from these government health subsidies.⁵ Analysis shows that the DHS is better accessed by the poor, and government health budget subsidies preferentially benefit the poor, as measured by 'benefit incidence'.^{6,7}

2. TRAJECTORY TOWARDS ACHIEVING UNIVERSAL HEALTH CARE

Prior to the achievement of universal health care in 2002, nearly one-third of Thailand's population was uninsured. It took Thailand 27 years of progressive efforts from 1975 to achieve universal health care. Free health care was introduced in 1975 for low-income groups. The publicly financed Medical Welfare Scheme involved a means test for low-income households and issuance of a card valid for three years. Following this, coverage was gradually extended to various population groups in a systematic way to cover the elderly, children aged under 12 years and persons with disabilities.⁸ The explicit pro-poor ideology was reflected in the government policy to prioritize the protection of the poor and vulnerable populations.

In 1980, a Royal Decree was issued to cover government employees and their dependants through a tax-financed welfare scheme. In 1984, the Community Based Health Insurance (CBHI) scheme began to cover the non-poor informal sector, funded by low-cost premium contributions. The 1990 Social Security Act established Social Health Insurance (SHI) for private sector employees, financed through payroll taxes. In 1994, the CBHI became 50 percent publicly subsidized and was transformed into public voluntary health insurance. Despite this variety of schemes, the remaining 30 percent of the population – mostly informal sector and private employees in smaller enterprises –

¹ Tangcharoensathien V, Prakongsai P, Limwattananon S, Patcharanarumol W, Jongudomsuk P. From targeting to universality: lessons from the health system in Thailand. In Townsend P, ed. *Building decent societies: rethinking the role of social security in development*, 310–322. Houndmills, Basingstoke, Hampshire: Palgrave Macmillan, 2009.

² Patcharanarumol W, Tangcharoensathien V, Limwattananon S, Panichkriangkrai W, Pachanee K, Pongkantha W, Gilson L, Mills A. *Why and how did Thailand achieve good health at low cost?* In Balabanova D, McKee M, Mills A., eds. *'Good health at low cost' 25 years on. What makes a successful health system?* 193–223. London: London School of Hygiene & Tropical Medicine, 2011.

³ Tangcharoensathien V, Limwattananon S, Suphanchaimat R, Patcharanarumol W, Sawaengdee K, Putthasri W. *Health workforce contributions to health system development: a platform for universal health coverage. Bulletin of the World Health Organization* 2013;91:874–80.

⁴ Putthasri W, Suphanchaimat R, Topothai T, Wisaijohn T, Thammatacharee N, Tangcharoensathien V. *Thailand special recruitment track of medical students: a series of annual cross-sectional surveys on the new graduates between 2010 and 2012. Human Resources for Health* 2013;11:47.

⁵ World Bank. *Who Benefits from Health Sector Subsidies? Benefit Incidence Analysis*. Available at <http://siteresources.worldbank.org/INT/PAH/Resources/Publications/459843-1195594469249/HealthEquityCh14.pdf> [accessed 10 December 2015]

⁶ Limwattananon S, Tangcharoensathien V, Tisayathicom K, Boonyapaisarncharoen T, Prakongsai P. *Why has the universal coverage scheme in Thailand achieved a pro-poor public subsidy for health care?* *BMC Public Health* 2012;12(suppl 1):S6.

⁷ Prakongsai P, Tangcharoensathien V. *Benefit incidence analysis before and after universal coverage in Thailand. Value in Health* 2006; 9: A211–2.

⁸ Tangcharoensathien V, Prakongsai P, Limwattananon S, Patcharanarumol W, Jongudomsuk P. *From targeting to universality: lessons from the health system in Thailand*. In Townsend P, ed. *Building decent societies: rethinking the role of social security in development*, 310–322. Houndmills, Basingstoke, Hampshire: Palgrave Macmillan, 2009.

were not covered by health insurance and were, therefore, left uninsured.

In 2002, Thailand reached full population coverage through the new Universal Coverage Scheme, financed by general taxation. Beneficiaries in the Medical Welfare Schemes (formerly called Free Care, which covered the low income households, the elderly, children under 12 years and disabled persons), the publicly subsidized voluntary insurance scheme (which covered the informal sector), and the uninsured (making up 30 percent of the population), were combined and covered by the UCS.

3. UNIVERSAL COVERAGE SCHEME: PRO-EQUITY DESIGN AND IMPLEMENTATION

The design and implementation of the Universal Coverage Scheme contributed to advancing health equity.

A tax-financed scheme, free at the point of service

General taxation was chosen as the main source of financing the UCS on two grounds. First, it was the most pragmatic option, as enforcing payment and collecting premium contributions from the informal sector were not technically feasible. Second, tax revenue was the most progressive source of health finance, as the rich pay a larger share of their income to taxes than do the poor.

To keep a political promise on universal health coverage during the 6 January 2001 general election campaign, the government launched the Universal Coverage Scheme after the election.⁹ To implement the Universal Coverage Scheme, using general tax revenues was the only choice.

At the inception of the scheme, a 30 Baht co-payment per visit or per admission was introduced, with an exemption for the poor. However, in 2006, the co-payment was removed; civil society organizations argued that it still imposed financial burdens on the near-poor and prevented them from accessing health services.

A comprehensive benefit package

The comprehensive benefit package of the UCS promotes financial risk protection. The harmonization of the benefit package across the three public health insurance schemes minimized inequity across the schemes.

The Civil Servant Medical Benefit Scheme (CSMBS) and SHI for public and private sector employees remained as independent schemes.⁹ Chapter 1, Universal Health Coverage: Principle, History and Evolution, further elaborates on how universal health coverage was initiated and implemented in Thailand.

Nearly all health services and interventions are covered except for few exceptions such as cosmetic surgery, annual health check-ups and interventions which are not proven effective. All medicines listed in the National Essential Drug List are covered by the package.

District Health Services are contracted by the National Health Security Office as the major service provider to deliver the benefit package. As described previously, the DHS system provides equitable access to services to the poor, and other marginalized groups. As DHS cannot provide specialist services, the benefits package includes referrals to provincial hospitals when necessary.

The comprehensive benefit package, free at the point of service, provides better financial risk protection to UCS members against catastrophic health spending (health care expenses that are relatively large compared to available household resources), which often adversely affects poor households.

Fostering health equity: Life-saving ART

In 2001, during the inception of the Universal Coverage Scheme, it was initially decided not to include HIV treatment in the benefit package. This was based mainly on the high cost of HIV treatment such as AZT.

In late 2001, the government pledged to provide free treatment to all eligible people living with HIV under the UCS, partly as a result of intense

advocacy efforts by groups of people living with HIV, civil society organizations, NGOs and others. And partly because the costs of treatment were within the government fiscal capacity.

ARV treatment was added to the UCS in 2003, with initial funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria. The Government Pharmaceutical Organization started producing generic versions of HIV triple combination therapy at a lower price in 2003. The Thai government was able to cover all costs of antiretroviral therapy from 2006, including antiretroviral medicines and related services such as voluntary counselling and testing, viral load tests and ARV resistance tests.

The two main drivers of adopting universal ART provision were pressure from civil society and the price reductions on HIV medicines which made it affordable. UCS members had significantly improved access to ART. Greater equity across the three public health insurance schemes was also achieved. The decision to cover ART has not only contributed to saving lives but also addressing equity, as HIV disproportionately affects the poor and the most vulnerable populations. Extensive geographical coverage of the DHS and referral services at provincial hospitals make equitable access possible to the diagnosis and treatment of all affected individuals.

In addition to HIV medicines, other associated services such as CD4 counts, viral load testing and the treatment of clinical complications of ART are also fully covered. This also fosters health equity as the poor can access these services without financial barriers and risks.

The expansion of universal access to ART during 2002–2007 also resulted in a further decline in the incidence of catastrophic health expenditure in both rich and poor households as seen in Figure 1.¹¹

Equity prevails: The case of high-cost dialysis

At the start of the Universal Coverage Scheme in 2001, renal replacement therapy (RRT) for patients suffering from end-stage renal disease (ESRD) was excluded, mainly due to the high cost of dialysis, making it unaffordable by the government.¹² Research examined the viability of inclusion of RRT

into the UCS benefit package.¹³ The cost, at that time, was around US\$ 20,000 per patient, per year (at an exchange rate of 30 Baht per US dollar). Peritoneal dialysis (PD) offered better quality of life and survival than haemodialysis (HD), but neither was shown to be cost effective. It was also projected that RRT would consume a significant portion of the UCS annual budget, from up to 3 percent in the first year to 15 percent in the 15th year. The projected budget impact and high costs were far beyond the fiscal capacity of the government.

However, not covering renal replacement therapy would perpetuate inequity. The two schemes, CSMBS and SHI, fully covered renal replacement therapy, while UCS members, who were often less affluent, had to pay for these costly services. As a result, they faced catastrophic health spending or were able to afford only partial dialysis, leading to death, a huge debt, or repossession of assets to pay for dialysis bills.¹⁴

In 2006, reformers proposed rationing renal replacement therapy by giving higher priority to younger people over older people with end-stage renal disease. They reasoned that it would not only minimize the programme costs, but that treatment outcome is better for the young, who are eligible for and have better transplant outcomes, which is the most cost-effective renal replacement therapy. However, with pressure from an ESRD patient group, the Cabinet decided to adopt universal renal replacement therapy coverage with peritoneal dialysis.¹⁵

This decision was made on the grounds that each of the three public insurance schemes should have equivalent benefits and that the right to health services as endorsed by several Constitutions overrode questions of efficiency. The government selected peritoneal dialysis over haemodialysis for reasons that favoured the poor. As peritoneal dialysis can be carried out at home, there is no travelling cost, which would be significant, particularly for the rural poor, if they had to travel three times a week to the provincial city centre for haemodialysis.

⁹ Jongudomsuk P, Srithamrongsawat S, Patcharanarumol W, Limwattananon S, Pannarunothai S, Vapatanavong P, Sawaengdee K, Fahamnuaypol P. Financing. In Tangcharoensathien V (ed). *The Kingdom of Thailand Health System Review (Health Systems in Transition, Vol. 5;No. 5;2015)*. Manila: WHO, 2015.

¹⁰ Tangcharoensathien V, Pitayarangsarit S, Patcharanarumol W, Prakongsai P, Sumalee H, Tosanguan J, and Mills A. Promoting universal financial protection: how the Thai universal coverage scheme was designed to ensure equity. *Health Research Policy and Systems* 2013;11:25.

¹¹ National Health Security Office. *Fund management manual of national health security [in Thai]*. National Health Security Office, 2007.

¹² Treerutkuarkul A. Thailand: health care for all, at a price. *Bull World Health Organ* 2010;88:84–5.

¹³ Teerawattananon Y, Mugford M, Tangcharoensathien V. Economic evaluation of palliative management versus peritoneal dialysis and hemodialysis for end-stage renal disease: evidence for coverage decisions in Thailand. *Value Health* 2007;10:61–72.

¹⁴ Prakongsai P, Palmer, N, Uay-Trakul P, Tangcharoensathien V, Mills, A. The implications of benefit package design: the impact on poor Thai households of excluding renal replacement therapy. *Journal of International Development* 2009;21:291–308.

¹⁵ Tantivess S, Werayingyong P, Chuengsaman P, Teerawattananon Y. Universal coverage of renal dialysis in Thailand: promise, progress, and prospects. *BMJ* 2013;346:f462 doi:10.1136/bmj.f462.

4. EMPIRICAL EVIDENCE: EQUITY AND FINANCIAL RISK PROTECTION

Empirical evidence shows the introduction of the Universal Coverage Scheme led to more equity in health financing and improvements in financial risk protection for the poor.

Both the Universal Coverage Scheme and the Civil Servant Medical Benefit Scheme are funded by general taxation. Because tax is progressive, where the rate increases from low to high, based on earnings, this means that the rich pay a higher proportion of their income taxes than the poor, and that the UCS and CSMBS are funded progressively.

Health financing in Thailand is consistently progressive,¹⁶ and budget subsidies disproportionately benefit the poor. The Concentration Index (CI) is a measure of the distribution across income classes. The index is bounded between -1 and 1; zero represents equality, below zero means a higher concentration among the poor and above zero means a higher concentration among the rich.¹⁷

Benefit incidence preferentially benefits the poor and has a negative concentration index as the poor receive more benefits. Financial incidence has a positive concentration index as it is the rich who contribute more. Using data from the Health and Welfare Survey in 1986 and 1991, analysis shows that prior to the UCS in 2002, the rich used health services more than the poor.¹⁸ Yet after the UCS was introduced, the use of health services shifted in favour of the poor, as reflected by a negative value in the Concentration Index.¹⁹

While government health spending already favoured the poor prior to the introduction of Universal Health Coverage, evidence of the use of health care resources by the poor resulted in the

continued direction of resources towards the poor and pro-poor subsidies in subsequent years, in particular at district and provincial hospital levels.²⁰

The district health system as described previously is a positive factor, and equity has been achieved in admissions to the DHS. The DHS typically consists of 10 to 15 health centres and a district hospital of 10 to 90 beds, serving a typical district catchment population of 50,000. The DHS serves as the contractor for primary care services. The DHS is easily accessible to rural populations, who are mostly poor. Due to its geographical proximity, any transport costs paid by households to access the DHS are also minimal.

An in-depth analysis of the 2006 Multiple Indicator Cluster Survey (MICS) on the use of maternal and child health services found perfect equity across households' wealth index.²¹ The gap between rich and poor gap in terms of coverage of maternal and child health interventions was extremely small. However, poor maternal and child health outcomes - including teen pregnancies, child stunting and wasting - were concentrated among the poorest quintiles.

The Universal Coverage Scheme has also led to improved financial risk protection for both rich and poor, although more so for the poor. This was demonstrated in the decrease in the incidence of catastrophic health expenditure²² from 6.8 percent in 1996 (prior to the UCS) to 2.9 percent in 2009 among the poorest quintile, and from 6.1 percent to 4.7 percent among the richest quintile (see Figure 1). There was a statistically significant difference between rich and poor in all years, except in 2000 (P=0.667).²³

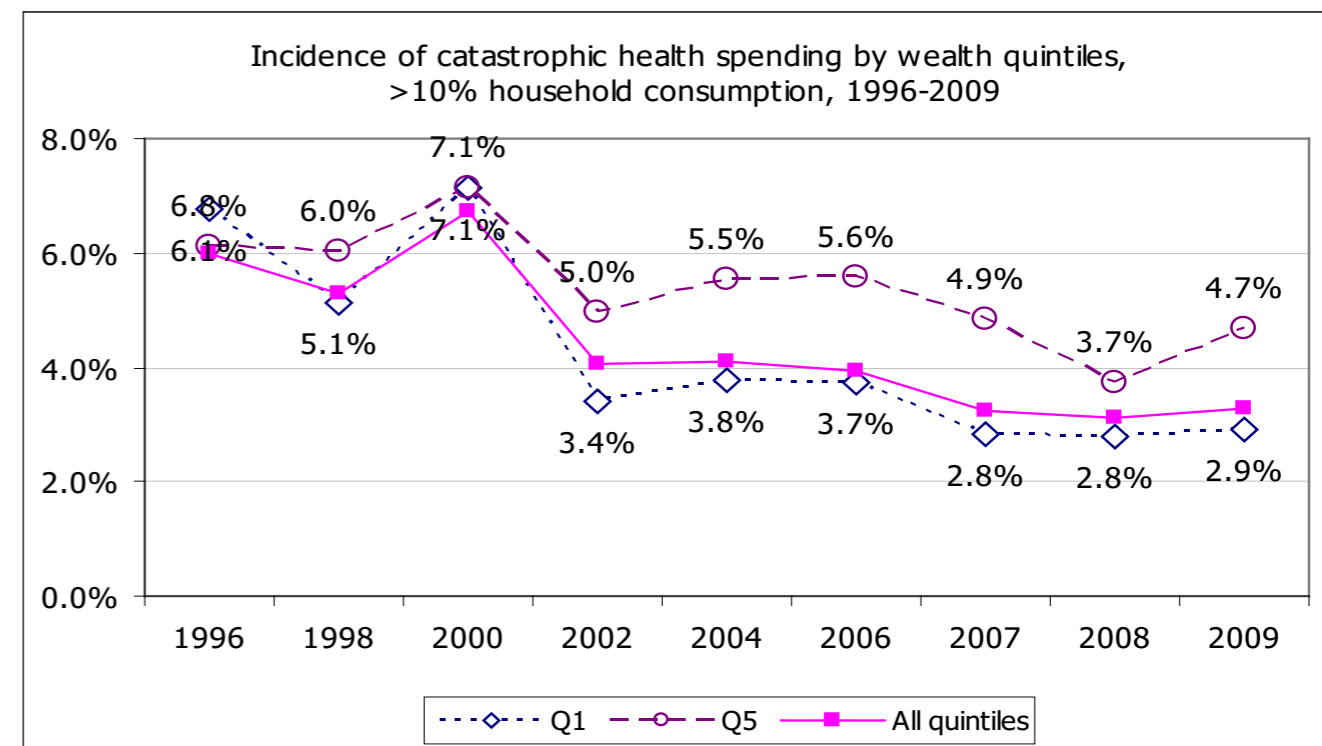


Figure 1: Incidence of catastrophic health expenditure prior to UC (1996-2000) and after UC (2002-2009), national averages.

Note: Catastrophic health expenditure refers to household spending on health that exceeds 10 percent of total household consumption expenditure. Q1 represents the poorest quintile and Q5 the richest. Source: Computed by S Limwattananon using the national dataset of household socio-economic surveys conducted by the National Statistical Office.

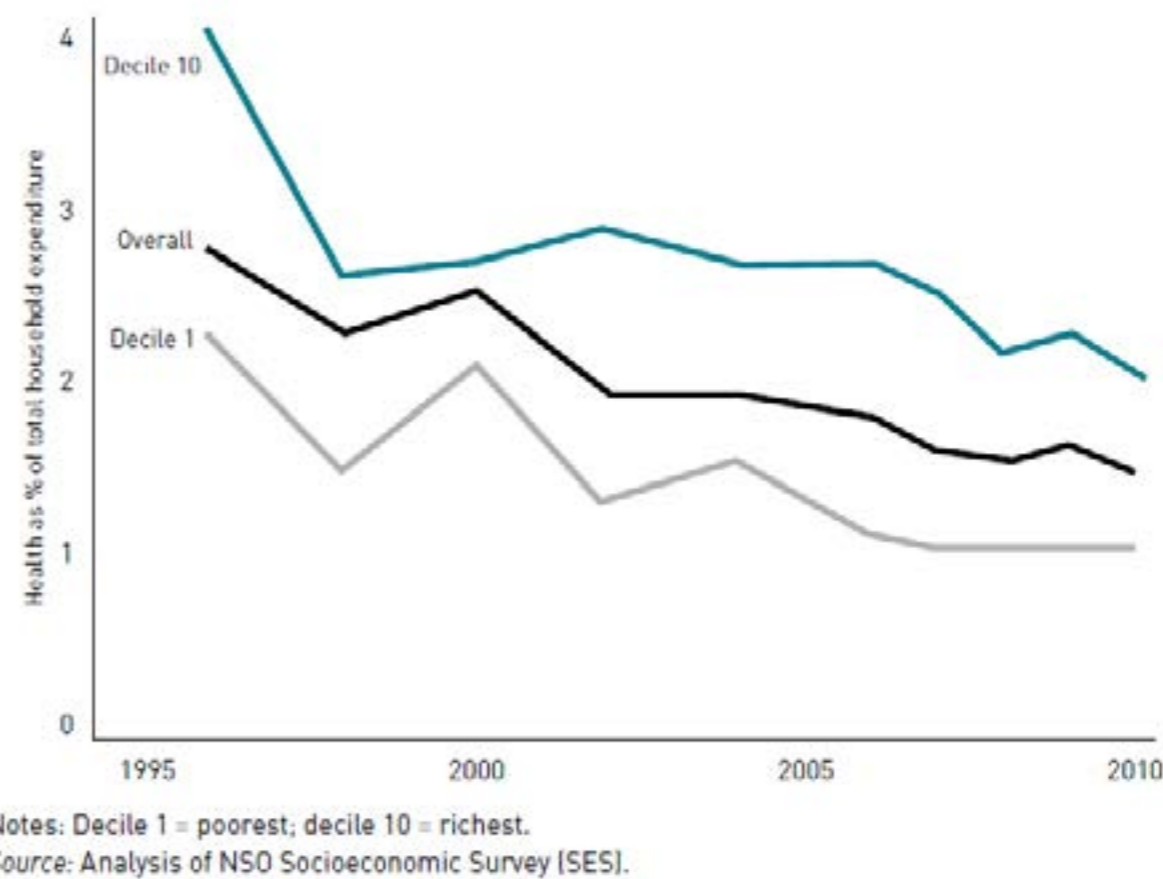


Figure 2: Direct payment for health as percentage of total household expenditure, overall and by richest and poorest expenditure deciles, 1996-2010

¹⁶ Prakongsai P, Limwattananon S, and Tangcharoensathien V. The equity impact of the universal coverage policy: Lessons from Thailand. *Advances in Health Economics and Health Services Research* 2009;21:57-81.

¹⁷ O'Donnell O, van Doorslaer E, Wagstaff A, and Lindelow M. *Analyzing health equity using household survey data: a guide to techniques and their implementation*. Washington DC: World Bank 2008

¹⁸ Tangcharoensathien V, and Jongudomsuk P. *From Policy to Implementation: Historical Events during 2001-2004 of Universal Coverage in Thailand*.

¹⁹ Limwattananon S, Tangcharoensathien V, Tisayathicom K, Boonyapaisarncharoen T, Prakongsai P. Why has the Universal Coverage Scheme in Thailand achieved a pro-poor public subsidy for health care? *BMC Public Health* 2012;12(suppl 1):S6.

²⁰ Prakongsai P, Tangcharoensathien V. Benefit incidence analysis before and after universal coverage in Thailand. *Value in Health* 2006;9:A211-2.

²¹ Limwattananon S, Tangcharoensathien V, and Prakongsai P. Equity in maternal and child health in Thailand. *Bulletin of the World Health Organization* 2010;88:420-7.

²² Limwattananon S, Tangcharoensathien V, Prakongsai P. Catastrophic and poverty impacts of health payments: results from national household surveys in Thailand. *Bulletin of the World Health Organization* 2007; 85: 600-6.

²³ Evans TG, Chowdhury MR, Evans DB, Fidler AH, Lindelow M, Mills A, Scheil-Adlung X. *Thailand's Universal Coverage Scheme: Achievements and Challenges. An independent assessment of the first 10 years (2001-2010)*. Thailand: Health Insurance System Research Office, 2012.

According to the Household Socio-Economic Survey (SES), which is Thailand's nationally representative household survey, the average household spending on health care before the achievement of universal health care was above 2 percent of total household consumption expenditure (Figure 2). It gradually declined after the introduction of the universal coverage scheme to 1.4 percent in 2010. The reduction in proportional spending on health was found in both the poorest (expenditure decile 1) and richest (decile 10) subgroups.

The incidence of medical impoverishment is low and decreasing, as measured by the additional number of non-poor households falling under the national poverty line as a result of health

payments. The percentage of the population experiencing medical impoverishment declined from 11.9 percent in 2000 to 8.6 percent in 2002 and 4.7 percent in 2009. Today, out-of-pocket expenditures among Universal Coverage Scheme members are mainly because some members bear the full cost of care because they choose to use private hospital inpatient care that is not covered by the UCS or they bypass the referral system. At the sub-national level, medical impoverishment also dropped consistently.

Three health equity impacts are depicted in Figure 3, while Figure 4 illustrates positive socio-economic effects that spill over from healthy citizens.



Figure 3: The Three Equity Impacts in Thailand



Figure 4: Socio-economic impacts of healthy citizens

5. OTHER PRO-EQUITY FEATURES AND POLICIES

Universal access prevails

In the lead up to the universal coverage scheme, some advocated not for universal coverage but for targeting particular beneficiaries. They recommended increasing coverage to particular population subgroups using incremental steps such as more effective coverage of poor households, extending Social Health Insurance to cover spouses and children, the voluntary enrolment of more self-employed SHI members through flat rate monthly contributions, boosting the publicly subsidized voluntary insurance scheme for the informal sector, and stimulating the uptake of private voluntary health insurance by the rich.

Advocates for universal coverage promoted the constitutional right to health care of all citizens. They argued that Thailand had used the targeting approach for 27 years, and yet 30 percent of the population was still uninsured as of 2001. At the same time, the mechanism to identify the poor was ineffective. All of the people in true poverty were not being reached, and it was reported that some people who were not poor were accessing free health services, probably due to nepotism in the local community. Advocates further pointed out that existing insurance schemes were not truly universal. For example, most members did not pay the premium for the voluntary part of SHI, as it had to be fully paid by individual contributions with no subsidy from employer or government.

Comprehensiveness prevails

Another issue related to health insurance was its comprehensiveness. The option of a basic minimum package was defeated without much debate in favour of a comprehensive package. It has been shown that the National Health Security Office (NHSO), which was responsible for the UCS, successfully secured additional funding needed for the expanded benefit package. The NHSO also took steps after the introduction of the UCS to expand coverage to a number of treatments such as ART (for HIV and AIDS) and RRT (for renal failure) that can produce catastrophic costs for households. This has boosted protection against financial risks and reduced health inequities.

Coverage for the stateless

Another example of equity-oriented health policy in Thailand is in the eventual extension of health insurance for stateless people. Issues of exclusion of stateless people and migrants, particularly those with documentation issues, is a serious challenge to achieving universal health coverage, health equity, and the right to health for all. While challenges remain, Thailand has taken steps to address these issues.

The Thai government introduced a low-income card scheme in 1976. Before universal health care was introduced, it was for households and individuals below the poverty line, regardless of their nationality.²⁶ However, this changed drastically after the UCS was launched. The legal interpretation by the Council of State of a 'Thai citizen' in the 2002 National Health Security Act was limited to residents having Thai nationality.

This had negative consequences on stateless people, who consequently had to pay out of pocket for health care. Without sufficient funds, some stateless people could not access essential health services, or they suffered catastrophic spending.²⁷ Some MOPH hospitals, particularly those along the Thai-Myanmar border, experienced high levels of financial debt from providing services for stateless patients for whom they did not receive an explicit subsidy from the government.²⁸ With pressure from civil society and humanitarian activists, the Cabinet in 2010 launched a new scheme, Health Insurance for People with Citizenship Problems, which aimed to temporarily relieve the financial crisis of border hospitals and increase access to care among stateless people. However, it did not cover undocumented migrants, covering only Thai nationals, pending verification of their status.

Sustained political commitment

Thailand has health equity as an explicit policy goal. Since 1975, poor and low-income households were the first groups covered by the Medical Welfare scheme, financed by general tax revenue. While poverty reduction programmes were supported by successive governments through socio-economic, education and agriculture policy interventions,

²⁶ Tangcharoensathien V, Patcharanarumol W, Vasavid C et al. Thailand Health Financing Review 2010. Nonthaburi, Thailand: International Health Policy Programme, 2010.

²⁷ Hasuwannakit S. Universal Health Coverage for marginalized non-Thai people in Thailand. Health Systems Research Institute Journal 2012;6:402-415.

²⁸ Suphanchaimat R. Service and financial burdens from providing free health care to "stateless people": the situation of Umphang Hospital, Thailand. The 5th National Health Research Forum. Vientiane, Lao PDR: Ministry of Health, 2011.

a parallel MOPH policy was prioritized to protect and enable access to health services by the most vulnerable – the poor, elderly, children under the age of 12, and persons with disabilities. This took place well before the provision of health coverage to formal sector public and private employees.

Health reform is complex and difficult. It would have been nearly impossible to address the social, economic and political challenges involved without strong political commitment. Health reform has been supported by a well-known Thai approach known as the 'triangle that moves the mountain'.²⁹ It describes the synergistic endeavour (the triangle) to overcome extremely difficult challenges (the mountain) through the active movement and collaboration among three key actors who represent different kinds of social engagement: politicians (involvement and commitment), technocrats (research, knowledge generation and management) and civil society (social learning and movement).

Government effectiveness (one of the six indicators of the Worldwide Governance Index), especially in the health sector, plays a critical role in translating political intentions into effective implementation and good outcomes.^{30,31} Government effectiveness relates to the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.³² Thailand has received a high rank in government effectiveness, with little variance from 62.9 percent in 1996 to 65.9 percent in 2014.³³ However, Thailand's rank for political stability and absence of violence has decreased from a high of 63.5 percent in 1998 to 16.5 percent in 2014, its lowest ranking among the six indicators.

Despite a lack of political stability in Thailand between 2001 and 2011, the UCS has thrived. Changes in power and political instability did not affect support for the UCS or continuity; its growth and expansion has demonstrated that the merits and contributions of UCS to Thai society are valued

and supported by Thai people and political leaders.

Inclusive health policy formulation

The National Health Assembly (NHA) in Thailand was formed in 1988 when a national public health assembly convened by MOPH and several agencies recommended the creation of a forum where all sectors could discuss health.³⁴ Following the first assembly, the health system reform movement was started.

NHA has a number of notable achievements. It was part of major paradigm shifts. One was from the definition of health as merely an absence of diseases or infirmity to understanding health as well-being. Another shift was viewing health as a human right. NHA has also formalized public participation in national health policy development.

All these were embraced in the content of the National Health Act in 2002 through an extensive series of national consultations. In 2004, a popular campaign was launched to gather 50,000 signatures in support of the National Health Act. The National Health Act was adopted in 2007.

The Act mandates an annual National Health Assembly, which had its first sitting in 2008. Between 2008 and 2012, 51 resolutions were adopted. When government action is required, NHA resolutions are submitted to the Cabinet for legal approval through Cabinet resolution; and government agencies are assigned responsibility for full implementation or enforcement.

NHA successfully brought together various actors and sectors involved in the social production of health, including groups often socially marginalized, such as people living with HIV and persons with disabilities. It provides an innovative model of how governments can increase public participation and intersectoral collaboration; it is hoped that it could be adapted in other contexts. However, significant challenges still remain in ensuring full participation of interested groups and in implementing and monitoring the impact of the resolutions passed.³⁵

Engagement of civic actors

Civic actors (also referred to as civil society, as represented in civil-society organizations (CSOs), community-based organizations and sometimes through non-government organizations) have played a critical role in the political process for policies that supporting equity in health.

A key way in which they are involved are determining new benefits under the Universal Coverage Scheme and which ones should be included in the UCS benefit package. Each year, there is a process to nominate new benefits, interventions and key topics for discussion. Patient groups and CSOs take part, along with representatives from academia, professional and royal colleges, government and private sector. As the previous sections discussed, civil society and community groups also played a significant role in the advocacy and eventual adoption of universal ART and universal RRT.

The governing body of the Universal Coverage Scheme is the National Health Security Board. Civil society is well represented on the board. They play a critical role in the NHS Board, ensuring citizens' voices are heard and decisions are made for public benefit, safeguarding the public interest.

The 30 board members are (a) the Minister of Public Health as the chair; (b) 8 government representatives, ex-officio; (c) 4 local government representatives; (d) 5 representatives from NGO constituencies; (e) 4 representatives from 4 professional councils; (f) 1 representative from the Private Hospital Association; and (g) 7 experts appointed by the Cabinet. The Secretary General of NHSO serves as the secretariat, and is counted as a member.

NGO representatives are chosen as five out of nine constituencies, selected among themselves, and then submitted and appointed by the Cabinet. The nine NGO constituencies represent many vulnerable and marginalized populations:

1. Children and adolescents
2. Women
3. Elderly people
4. Persons with disabilities or mental illness.
5. People living with HIV or other chronic diseases
6. Workers
7. Slum or crowded communities
8. Farmers and agricultural workers
9. Minorities

NHSO also allocates funding to support identifying solutions for local health issues through a community health fund, with equal local government matching

funds. This fund is another opportunity to involve communities and marginalized groups in the social production of health and health equity.

See Chapter 9 of this report to hear from people living with HIV, and their perspective on developing a comprehensive continuum of care in Thailand.

Improved access to medicines: The use of government licences

Access to medicines is an issue of equity. High prices can prevent those who need medicines from being able to use them. They can prevent the poor from using newer, more effective and less toxic medicines with significant health benefits.

Thailand has employed a range of policy measures to improve access to affordable medicines. One of them is a measure relating to intellectual property rights, and Thailand's leadership on the issue is known around the world, praised globally for its measures to ensure equitable access to life-saving medicines.

Compulsory licensing of pharmaceuticals is a legal instrument permitted under an international agreement called TRIPS (the agreement on the Trade-Related aspects of Intellectual Property Rights). Compulsory licensing allows the domestic production or importation of a generic version of patented medicines to address national public health concerns or emergencies. Thailand uses what are called government-use licenses, as the medicines are not used for commercial purposes.

Thailand has issued one of the largest numbers of government-use licenses for medicines in the world since the Doha Declaration.³⁶ Thailand was also the first developing country ever to issue government-use licenses for promoting access to life-saving medicines for chronic non-communicable diseases, which is encouraged by the Political Declaration of the UN High-Level Meeting on Prevention and Control of Non-Communicable Diseases adopted by the UN General Assembly in 2011.

The use of compulsory licences is one of the reasons for the success of the Universal Coverage Scheme. As the UCS expands its coverage of the Thai population, and its benefits package, this has led to the increased access and consumption of medicines. While the average annual increase of drug expenditure over a five-year period immediately prior to the introduction of UCS was 9 percent, this jumped to 34 percent afterwards.³⁷ Medicines had high prices, including from lack of competition.

²⁹ Wasi P. Triangle that moves the mountain and health system reform movement in Thailand. *Human Resources for Health Development Journal (HRDJ)*;2002:4(2).

³⁰ Patcharanarumol W, Tangcharoensathien V, Limwattananon S, Panichkriangkrai W, Pachanee K, Pongkantha W, Gilson L, Mills A. Why and how did Thailand achieve good health at low cost? In Balabanova D, McKee M, and Mills A., eds. 'Good health at low cost' 25 years on. What makes a successful health system? London: London School of Hygiene & Tropical Medicine, 2011:193-223.

³¹ Balabanova D, Mills A, Conteh L et al. Good health at low cost 25 years on: lessons for the future of health systems strengthening. *The Lancet* 2013;381:2118-33.

³² World Bank, *Worldwide Governance Indicators, Frequently Asked Questions*. Available at <http://info.worldbank.org/governance/wgi/index.aspx#faq> [accessed 12 December 2015].

³³ World Bank, *Worldwide Governance Indicators, country data report for Thailand, 1996-2014*. Available at, <http://info.worldbank.org/governance/wgi/pdf/c213.pdf> [accessed 10 December 2015].

³⁴ National Health Commission Office. *Birth of Health Assembly: Crystallization of Learning towards Wellbeing*. Danwattana S, ed. Bangkok: Sangsue Publishing, 2008.

³⁵ Rasanathan K, Posayanonda T, Birmingham M, Tangcharoensathien V. Innovation and participation for healthy public policy: the first National Health Assembly in Thailand. *Health Expectations* 2012;1:87-96.

³⁶ Beall R, Kuhn, R. Trends in compulsory licensing of pharmaceuticals since the Doha declaration: a database analysis. *PLoS Med.* 2012; Jan;9(1):e1001154.

³⁷ Bureau of Policy and Strategy. *Thailand Health Profile Report 2008-10*. 2010

How did the government manage? Knowing that it has the responsibility to provide life-saving medicines while managing the cost, and after unsuccessful price negotiations with patent holders, the government used compulsory licensing to issue government-use licences.³⁸ They were used to increase access to medicines for disease such as cancer, heart disease and HIV.

The government's decisions were made on strong equity and social justice grounds, as illustrated by the remarks by Dr. Mongkol Na Songkhla, former Public Health Minister of Thailand:

*'Essential drugs are humanitarian products and must be made universally accessible to everyone who needs them... When a government such as ours declares a "compulsory license" to allow for public non-commercial use of patented products by the government for the greater public good, we are doing so to increase access to these essential, often life-saving, medications for the poor and marginalized members of our communities...'*³⁹

The impact of these compulsory licenses was that the government could produce or import more affordable generic medicines, resulting in drastic

price decreases, and hence increasing patients' access to life-saving medicines (see Figure 5).

Compulsory licensing has allowed the government to operate the Universal Coverage Scheme, providing essential life-saving medicines while maintaining financial sustainability, equity and effectiveness. For example, following the use of compulsory licensing, the price of the heart disease medicine, Clopidogrel, dropped from 700 Baht (US\$23) per unit to less than 10 Baht (US\$3) per unit. This made it possible to implement the 30 Baht Health Scheme and saves the government at least 1 billion Baht (US\$33.4 million) per year. Meanwhile, between 2009 and 2013, the number of people living with HIV receiving ART increased by 50 percent, while the budget spending remained largely unchanged (read more about universal access to antiretroviral treatment in Thailand in Chapter 4).

Studies^{40,41} on the economic and health impacts of Thailand's government-use licenses estimated savings of over US\$370 million within five years after the introduction of the license. They have put an additional 84,000 people on treatment, resulting in an estimated gain of 12,493 quality-adjusted life years (QALY).

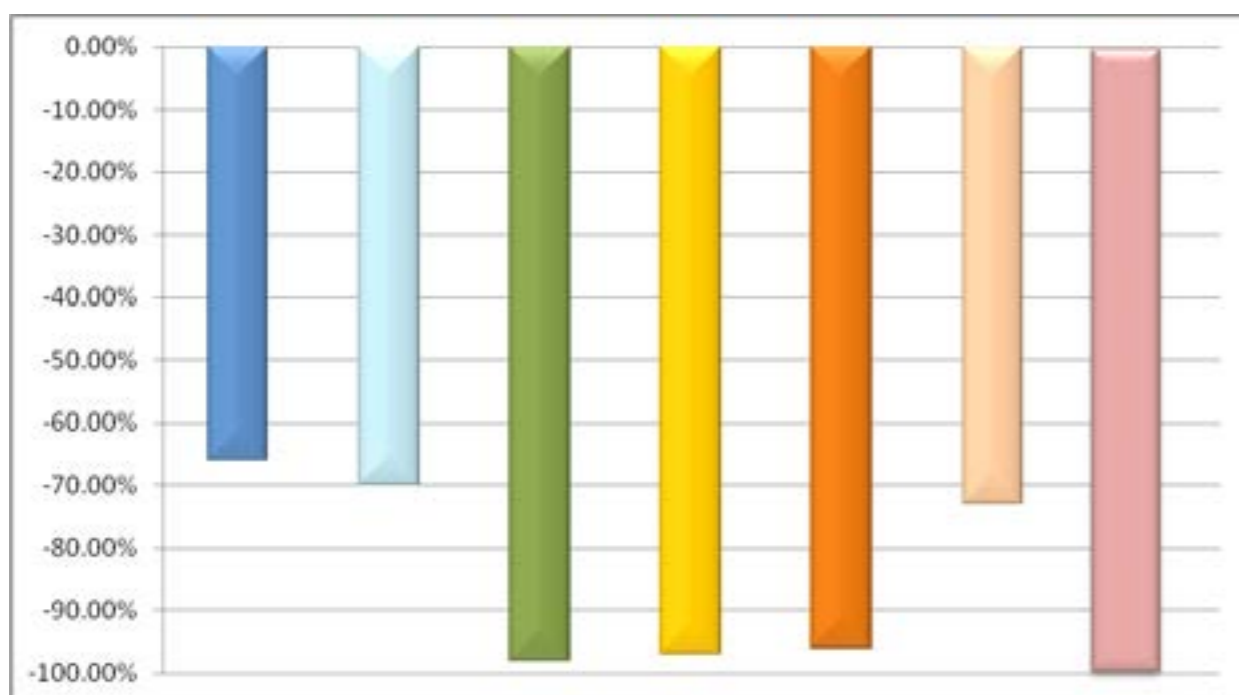


Figure 5: Drug price reductions following the issuing of government use licences

³⁸ Government use licensing, part of compulsory licensing, is a legal measure allowed under the WTO Trade-Related aspects of Intellectual Property Rights Agreement (TRIPS) as crystallized by the Doha Declaration on TRIPS and Public Health.

³⁹ UNDP, UNAIDS, WHO. Policy Brief: Using TRIPS flexibilities to improve access to HIV treatment. 2010.

⁴⁰ Mohara A, Yamabhai I, Chaisiri K, Tantivess S, Teerawattananon Y. Impact of the introduction of government use licenses on the drug expenditure on seven medicines in Thailand. Value Health. 2012 Jan-Feb;15(1 Suppl):S95-9.

⁴¹ Yamabhai I, Mohara A, Tantivess S, Chaisiri K, Teerawattananon Y. Government use licenses in Thailand: an assessment of the health and economic impacts. Global Health. 2011;7:28.

6. CONCLUDING REMARKS

At the heart of the processes in Thailand to formulate health policy is a commitment to working in the interests of the poor, and ensuring equity in access to health. This pro-equity, pro-poor lens can be seen through the historic development of health policy and infrastructure, starting from building primary health care infrastructure through the creation of district health systems, which covered all districts of Thailand and lay the foundation to advance health equity.

The functioning of the DHS system was also made possible by longstanding policies related to the health professional education sector: that all health graduates since the 1970s must perform mandatory rural health services as part of their social obligations. The DHS, where the rural population can 'feel' and use health services as needed, is the foundation for translating the Universal Coverage Scheme into pro-poor outcomes. Consequently, when people 'feel' its merits, they also feel a sense of ownership of the Universal Coverage Scheme, taking over this responsibility from the political party which initiated it; and protecting it from political interference.

Universal health coverage, as embodied in the Universal Coverage Scheme, started its long march by the gradual extension of financial risk protection throughout Thailand. It began by targeting different population groups and poor, low-income households in the 1970s and then expanded until UCS was achieved in 2002.

Designing and implementing the UCS with pro-equity, pro-poor aims has resulted in pro-poor, pro-equity outcomes. The introduction of universal ART is a clear reflection of a pro-poor ideology, as people affected by HIV are among the most vulnerable in society. Universal RRT, introduced primarily out of humanitarian concerns for equity and financial risk protection, despite it not being cost-effective, is a further example of Thailand's pro-equity commitment, valuing the principle of equity over efficiency.

Pro-equity and pro-poor health policy formulation has been realized by sustainable political commitments across different government regimes in inclusive and participatory fashion through NHA and National Health Security governance mechanisms and active civic actors. Inclusive and equitable health policy development corresponds with the principles of 'leaving no one behind' and 'reaching the furthest behind first' of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs). Thailand's continuous economic growth, though with cyclical economic downturns, has also contributed to a favourable fiscal space with strong political commitment to the health of the population.

This chapter has described how the creation of the Universal Health Scheme demonstrated pro-poor and pro-equity values with demonstrated pro-poor and pro-equity outcomes. The subsequent chapters focusing on HIV and the introduction of universal ART explore in greater detail how to apply these values to policymaking.

CHAPTER 2

Thailand Universal Health Coverage: Principles, History and Evolution

Thailand Universal Health Coverage: Principles, History and Evolution

Dr. Renu Srismith
National Health Security Office

Prior to the launching of the Universal Coverage Scheme (UCS), Thailand had implemented a number of different health financing programmes to promote the health of its citizens. These included health benefit schemes for civil servants, retirees and state enterprise personnel, all of which included family members; a mandatory social security scheme for employees in the formal sector under the social security law; a scheme for people with low income or who were underprivileged; a voluntary health care project; a specific health insurance mechanism including legislation for the protection of victims of motor vehicle accidents; and private insurance schemes.

Despite the many financial risk protection schemes mentioned above, total health coverage was only 70 percent of the population. In the meantime, the national health care spending was increasing constantly and gaps existed in the accessibility and quality of services. Some populations faced impoverishment or even bankruptcy due to financial burden from the high costs of medical care. These social and economic issues led to the reform of national health system with the initiation of the Universal Coverage Scheme that aimed at equitable access to essential health care services through collective financing and the third party payer principle.

In addition, the UCS was created based on fundamental state policies as described under the Thai Constitution 1997:

Section 52 :

All Thai people have an equal right to access quality health services.

Section 82 :

The State shall thoroughly provide and promote standard and efficient public health care coverage for every citizen.

After the '30 Baht Health Care Scheme' policy was introduced by the Thai Government led by Pol. Lt. Col. Thaksin Shinawatra, high-level officials in the Ministry of Public Health (MoPH) together with a group of technocrats had a consultative meeting with the Prime Minister with regards to policy implementation at the Santi Maitree Building where the following consensus was reached:

1. Universal Health Coverage (UHC) is one of the most important missions of the government, which requires civil society mobilization to ensure shared responsibilities and partnership between the government and citizens.

2. The goal is to ensure all Thai citizens have equitable access to standard health care benefits including cost-effective health promotion and disease prevention.

3. The main benefit package consists of basic health services in line with the Social Security Scheme. The extra benefits should include promotion of good health and prevention of disease for both the individual and family, as well as quality control for service delivery. Treatment for chronic kidney disease and antiretroviral therapy (ART) for AIDS patients should be further studied by the Health System Research Institute (HSRI).

4. The service provider would be a network of so-called one-stop services with an emphasis on primary health care. The network consists of both public and private providers. Citizens are entitled to choose from any service node in the network.

5. The Regional Management Unit will be allocated a budget from the central office to provide a budget to health care providers effectively.

6. The system must be ready before expanding into areas to cover the entire country.

7. Any reform measure should not reduce existing benefits provided to different groups such as the health care benefits for civil servants.

8. Investment and development of an information system for health care system management should be quickly performed within the next one to two years. It should also include clear and detailed financial data for further development of the UHC system.

PRINCIPLES OF THE UNIVERSAL COVERAGE SCHEME

1 The objective of the UCS is to even out suffering and well-being among people in society

The objective of the Universal Coverage Scheme is to balance out suffering and well-being among people in society. It is the system in which the healthy support the ailing and the rich help the poor through sharing risks caused by illness. It is also a strategy to promote solidarity and social cohesion

2 The UCS must be a sustainable programme, particularly in the following three areas:

2.1 Policy sustainability to ensure that the UHC policy and programme will be supported and implemented on a continuing basis regardless of changes in policy makers and management. Policy sustainability would be achieved with the creation of regulation such as the National Health Security Act.

2.2 Financial sustainability will be achieved when there is a guarantee that the budget for the UHC will be sufficiently and sustainably provided with a system in place to ensure efficient use of the resources.

2.3 Institutional sustainability can be reached if participating organisations and people within communities are made clear of their roles and responsibilities together with the enhancement of capacity according to their roles.

3 The establishment of the UCS should be a participatory and collaborative process involving all stakeholders

The establishment of the UCS should be a participatory and collaborative process of all involved stakeholders, including the community sector. All parties must take ownership and shared responsibility with the ultimate goal of good health for all Thais, and in accordance with the "sufficient health" principles. The design of the UCS must be harmonized with the lifestyle and culture of the community, and appropriately integrate local wisdom and knowledge.

4 The UCS must pay important consideration to people's access to primary health care as the front-line of service

The UCS must pay important consideration to people's access to primary health care as the frontline of service. The service must represent comprehensive care including curative care, health promotion, disease prevention and rehabilitation. Any medical services beyond primary care will be referred to other secondary health care services. The importance of primary health care is established by its following roles:



5 The management of the UCS shall be decentralized to the regions and provinces with roles, responsibilities and decision-making powers

The management of UCS shall be decentralized to the regions and provinces with roles, responsibilities and decision-making powers to exercise under a set of criteria, guidelines and standards designated by the central authority. In addition, the UCS will separate the roles between the purchaser and the provider for efficient audit, supervision, monitoring and evaluation of performance.

6 The financing system required for the UCS must be a long-term cost containment system without any effect on the quality and accessibility of service

The financing system required for the UCS must be a long-term cost containment system without any effect on the quality and accessibility of service while reducing people's unnecessary reliance on the service. Reimbursement for health care providers should be closed-end and performance-based.

7 The UCS must also facilitate a supportive system that allows people to acquire information about their rights and benefits

The UCS must also facilitate a supportive system that allows people to acquire information about their rights and benefits, as well as protecting their rights and their entitled benefits as defined by law including the right to select satisfactory health care units, hospitals or networks for registration and access to primary care services.

The National Health Security Act was passed in November 2002 with policy advocacy for the Universal Coverage Scheme led by **Dr Sanguan Nitayarampongs**, the founder and first Secretary-General of the National Health Security Office (NHSO).

The spirit of the National Health Security Act is to provide health care coverage that is essential for the good health and well-being of the citizens, as well as to enhance the efficiency of the health care service system, overseen by various stakeholders from the public, private and people

sectors. With the National Health Security Act, the NHSO was established to act as the system purchaser on behalf of the citizens. The National Health Security Act led to the reform of the overall health care system including health financing, the health system and the health care workforce as well as consumer protection relating to health services. It shifted the focus in health service delivery from hospitals to primary care units, while ensuring people's access to health services without additional financial barriers. Most notably, it was **the reform that emphasized equitable entitlement to quality health care for all Thais.**

The Universal Coverage Scheme is considered an important turning point for the Thai health care system. The benefits under the UCS allow for the promotion of good health, disease prevention, diagnosis, health care delivery and rehabilitation necessary for the good health and well-being of Thai citizens, including some traditional Thai

medicines and alternative medicines. The budgets are provided by the government and based on a capitation basis using medicines listed in the national Essential Drugs List. Later on, the benefit package expanded to cover people with chronic diseases such as HIV/AIDS, chronic kidney disease, and certain organ transplants.

FRAMEWORK AND STRUCTURE OF THE NATIONAL HEALTH SECURITY OFFICE

Dr Sanguan Nitayarampongs, who was the key advocate for the UCS, realized the necessity for the split between provider and purchaser to achieve equity, quality and efficiency of health services. This is reflected in the management framework of NHSO which had been designed to ensure checks and balances through the participation of government, academics and community representatives. This could be observed in Section 13 of the National Health Security Act which stipulates the establishment of the National Health Security Board (NHSB), and Section 48 which determines that the Standard and Quality Control Board (SQCB) must be appointed. The law indicates that the NHSB and the SQCB are responsible for policy formulation and quality assurance for health care services respectively.

The two governing bodies, NHSB and SQCB, have representatives from different organizations as well as people from nine different people's networks as follows:

1. Children and juvenile
2. Women
3. Elderly people
4. Disabled or mentally- ill people
5. People living with HIV or other chronic diseases
6. Labour
7. Slums
8. Farmers and agriculture
9. Minorities

Five representatives from the nine networks above are selected among themselves to be the board members. At the regional level, the NHSO also has sub-committees set up with a similar structure.

In terms of HIV treatment and care, a sub-committee was established for health development and services for PLHIV under the NHSB, and to oversee the AIDS Management Fund managed by the NHSO. The sub-committee members also include representatives from community and civil society networks.

DEVELOPMENT OF THE BENEFIT PACKAGE FOR HIV CARE AND TREATMENT UNDER THE UCS

Thailand is one of the leading countries in Southeast Asia that has a comprehensive continuum of care for people living with HIV and AIDS. To reach this goal, many research projects and studies were conducted with groups of PLHIV by domestic and international academics including the project to reduce HIV transmission from mother to child led by the Department of Health, Ministry of Public Health and several pilot projects carried out by the Bureau of AIDS, TB and STI, Department of Disease Control under the Ministry of Public Health. However, due to a very limited budget, these projects could

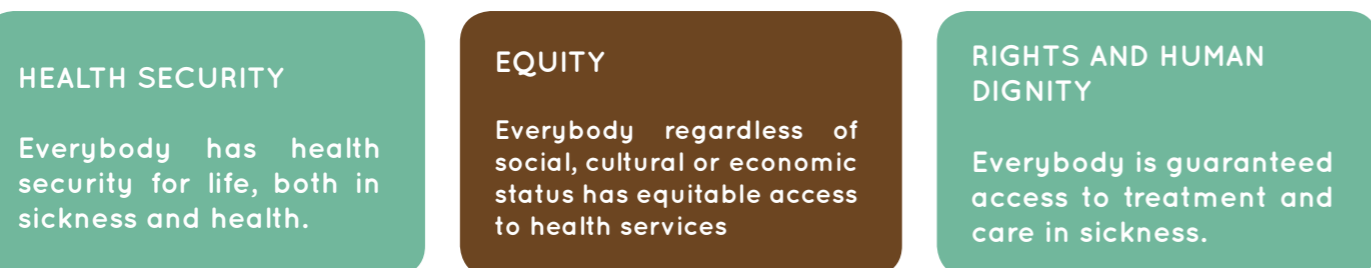
cover only a few groups, leaving a number of PLHIV who were in need of treatment unable to access essential treatment and care.

Before the declaration of the National Health Security Act, PLHIV had access to the ART programme managed by the Department of Disease Control (DDC) only through the clinical and research network. Although the programme had expanded coverage to 80,000 patients per year, it did not bring about successful outcomes in terms of treatment and care but only resulted

THE DESIRABLE HEALTH SYSTEM MUST INCLUDE:



THE CORE CONCEPTS OF THE UNIVERSAL COVERAGE SCHEME:



in the development of treatment guidelines and protocol, health service networking, and patient data management.

After the declaration of the National Health Security Act and the establishment of the National Health Security Office, Dr Sanguan Nitayarampongs also paid close attention to the problem of patients with chronic diseases, who normally incurred a high cost of treatment and drugs imported from other countries to Thailand.

AIDS is one of the diseases which has a very high cost of treatment and has to be taken for a lifetime. Moreover, the first year budget was a close-ended budget with allocation to service units for only 1,202.02 Baht per person per year. With these concerns over the budget, NHSO did not include ARV treatment as part of the benefits under the Universal Coverage Scheme.

Later, the National Health Security Board led by the Minister of Public Health appointed a subcommittee to prepare for the implementation and monitoring of the ART programme as part of the UCS benefit package that was signed on 30 September 2004, to bring the proposal on integrating the ART programme into the UCS to the National Health Security Board and to conduct the outcome evaluation of the programme. In order to prepare a sound policy paper, two working groups were formed to conduct the study on the health benefit packages and the programme management framework. Both working groups prepared evidence-based policy papers and proposals on the appropriate ART benefit package and management of the HIV fund along with the estimated budget for the programme.

The NHSB approved and adopted Resolution No.14/2548 on 28 November 2005 on the government policy, announced at the World AIDS Conference in Thailand in 2004, to include ARV treatment in the UCS benefit package. The 2,796.2 million Baht budget was allocated to NHSO for the management of the comprehensive continuum of care for 82,000 PLHIV including HIV Counselling and Testing (HCT), drug adherence and coordination with PLHIV networks for educating the targeted service recipients. These activities were started in 2006. The NHSB also agreed on the policy and management framework as well as collaboration between NHSO and MOPH on the provision of the comprehensive continuum of care for PLHIV under the UHC.

In order to achieve efficient programme and budget management, the DDC and NHSO jointly established a management centre for ARV treatment allowing health professionals and academics from both organizations to work together and learn from each other for two consecutive years before the handover of the comprehensive HIV treatment and care programme from the DDC to the NHSO under

supervision of the subcommittee on HIV.

Later, the AIDS Management Fund programme was set up within the NHSO building on the National Access to ART for People living with HIV and AIDS (NAPHA) programme previously overseen by the DDC.

On 28 June 2006, the consensus was reached to officially transfer the Universal Access to ART Programme from the DDC to the NHSO which became the HIV fund manager, whereas the DDC continued to take lead in HIV prevention, research and development and treatment monitoring.

Up until August 2013, it is estimated that 200,000 PLHIV have been under the care of the NHSO. For the programme management, the NHSO initiated an agreement with the Government Pharmaceutical Organization (GPO) for ARV drug procurement and logistics using the Vendor Managed Inventory (VMI) system, as well as central purchasing and central bargaining for efficient and quality treatment.

GPO's ability to locally produce the first-line ARVs and the Compulsory Licensing (CL) for second- and third-line ARV drugs has contributed significantly to increasing access to ARV drugs. A compulsory licence for efavirenz was issued in November 2006 and one for Kaletra in January 2007. This has also led to the decrease in the budget for ARV drugs managed by the NHSO.



This is reflected in the management framework of NHSO which had been designed to ensure the participation of government, academics and community representatives for checks and balances.



In conclusion, the key success factors that led Thailand to achieving the Universal Access to ART Programme were:

1. **Political commitment**
2. **A centralized HIV budget on top of capitation**
3. **A strong public health system**
4. **A strong network of PLHIV**
5. **Academic research**
6. **Efficient drugs procurement and logistics, supply-chain management and inventory**
7. **An advanced information system for programme management and improvement**
8. **Multistakeholder participation**

Today, the continuum of care for PLHIV has continuously been implemented. Treatment protocols and the benefit package have been developed and adapted according to the situation and changing technology.

CHAPTER 3

The Development of Thailand's Antiretroviral Treatment Programme

The Development of Thailand's Antiretroviral Treatment Programme

Dr. Sombat Thanprasertsuk
Department of Disease Control, Ministry of Public Health



The development of the ART programme dramatically reduced AIDS deaths and became the key component of the National AIDS Strategy.



HIV has adversely affected health, economics and society in Thailand over a long period of time. From 1984 until the present, an estimated more than one million people have been infected with HIV. More than half of them have passed away, leaving approximately 440,000 people living with HIV today.

Deaths caused by AIDS occurred frequently during the period when there were no effective antiretroviral (ARV) drugs in place for treating and preventing HIV infection. In 1992, the Ministry of Public Health (MoPH) initiated the antiretroviral therapy (ART) programme for PLHIV in Thailand. Since then, the development of the ART programme has dramatically reduced AIDS deaths and has become the key component in the National AIDS Strategy.

In this chapter, the author compiles key knowledge and lessons learned from the development of Thailand's ARV treatment programme with the hope they can be utilized for the planning of future services in Thailand, and for the application by interested parties in other countries.

THE PHASES OF ART PROGRAMME IN THAILAND

The development of the ART programme from the beginning to the integration of ARV treatment into the UHC programme can be divided into the following four phases:

- 1992-1998**
Introduction of ARV Treatment
- 1998-2000**
ARV Treatment Services in the Clinical and Public Health Research Networks
- 2000-2005**
National Access to Antiretroviral Programme for People living with HIV/AIDS
- 2005-Present**
Universal Access to Antiretroviral Treatment

1 INTRODUCTION OF ARV TREATMENT (1992-1998)

Prior to this phase, ARV drugs were not used as part of a public health approach by MoPH. The purpose of introducing ARV treatment was to assess and develop the capacity of health care services, especially at the level higher than tertiary care. During this phase, there were only a few university hospitals and regional hospitals with a small number of patients involved in the programme.

The most critical point to consider was that the Zidovudine (AZT) monotherapy that was used in this phase was ineffective in suppressing the progress of HIV. The programme was considered successful in terms of improving the readiness of

tertiary referral hospitals and capacity building among health care personnel for HIV services. However, in terms of treatment results, it was not successful.

At the end of Phase 1, the evaluation outcome recommended continuing the programme with further development of a clinical and research network as well as extending the programme to more hospitals. In addition, it was recommended to focus on strengthening the health service system in order to expand coverage and systematically improve the efficiency of the programme.

2 ARV TREATMENT SERVICES IN THE CLINICAL AND PUBLIC HEALTH RESEARCH NETWORKS (1998-2000)

During this phase, the programme focused on enhancing the personnel and organizational capacity of the service providers in the network to ensure a strengthened health service system. The programme also aimed at integrating ARV treatment into general health services by promoting it as part of a continuous and holistic approach. There were altogether 58 university and referral hospitals involved in the programme during this phase. The ARV drugs provided to PLHIV had evolved from monotherapy to dual therapy, and towards the end of this phase, had progressed to a triple-drug combination. In the meantime, the number of PLHIV with access to ARV treatment

expanded from the initial 1,200 to between 2,000 and 3,000.

The main challenge during the scaling up of ARV treatment in this phase was the high cost of the drugs. An attempt in co-payment was not successful. Towards the end of this phase, the development in ARV regimens had progressed tremendously to a cocktail of many ARV drugs. Combining with the increasing number of target beneficiaries, the programme continued to the development in Phase 3.

3 NATIONAL ACCESS TO ANTIRETROVIRAL PROGRAMME FOR PEOPLE LIVING WITH HIV/AIDS (2000-2005)

The third phase can be seen as divided into three smaller stages according to advancements in the drug regimens. The initial stage provided eight options of the triple-drugs cocktail. The treatment progressed to a fixed-dose combination of three ARV drugs in a single tablet. Meanwhile, the cost of drugs became lower. Thailand then later proceeded into the next stage with the adoption of the newly developed fixed-dose combination of a triple-drug regimen and expanding coverage as a result of the lower prices of ARV drugs. In the final stage, the programme was eventually developed into the National Access to ARV Programme for People living with HIV/AIDS (NAPHA).

13,000 in 2003 to 50,000 in 2004. The programme continued to enhance the capacity of hospitals and personnel by providing a series of training to multidisciplinary groups of doctors, pharmacists, counsellors, social workers, and laboratory technicians in order to establish an efficient health care management system in the hospital setting. There was constant review and assessment of the programme to ensure the drug regimens were up to date. Furthermore, civil society organizations in this phase were taking a stronger role in providing HIV treatment and care.

In terms of supply chain management, the system was developed using a Vendor Managed Inventory (VMI) to effectively procure ARV medicines. For the laboratory networks, there was an increase in the procurement of machines to analyse CD4 counts in accordance with the plan. Another activity involved in the development of the programme was ensuring drug adherence among PLHIV.

During this phase, the hospitals participating in the programme expanded from 119 in 2001 to 491 in 2004. After that, every single hospital under the Permanent Secretary Office and hospitals that were providing care to PLHIV started to enter the programme. In terms of coverage, the number of PLHIV accessing ARV treatment increased from

4 UNIVERSAL ACCESS TO ANTIRETROVIRAL TREATMENT (2005-PRESENT)

The progress in Phase 4 was made in response to the principle of people's rights to health services. The health system management agencies (purchasers) in Thailand are responsible for provision of services for PLHIV and AIDS patients under different insurance schemes including the Universal Coverage Scheme which is implemented by the National Health Security Office, the Social Services Scheme managed by the Social Services Office, and the Civil Servant Medical

Benefit Scheme run by the Comptroller General's Department.

Services under the health insurance schemes cover essential components of the ART programme such as HIV Counselling and Testing (HCT), Prevention of Mother-to-Child Transmission (PMTCT), initiation of ART irrespective of CD4 count according to the guidelines, development of ARV drug regimens

to reduce side effects, and laboratory services required for system monitoring and evaluation.

Another mark of progress in this phase was the development of an AIDS patient database and the provision of identification codes for patients accessing ARV treatment for the first time. This enabled service providers to record information relevant to cost reimbursement and other clinical and public health services at the central registry. The development of the information system has led to the effective planning and management of the ART programme. Additionally, the collection of data contributes to monitoring HIV epidemiology as well as the risk factors for drug resistance.

Finally, the key success factors of the universal ART coverage in this phase was the Compulsory Licensing (CL) on some of the expensive ARV drugs essential to saving lives of PLHIV. The ART Programme has enabled more than 200,000 PLHIV to access ARV treatment since 2005 until 2013 with an ever-increasing trend.



There had been constant review and assessment of the programme to ensure the drug regimens were up to date. Furthermore, civil society organizations in this phase were taking a stronger role in providing HIV treatment and care.



CHAPTER 4

The Universal Access to Antiretroviral Treatment Programme

The Universal Access to Antiretroviral Treatment Programme

Dr. Sorakij Bhakeecheep

Bureau of Secondary and Tertiary Care Support, National Health Security Office

In 2002, the Government of Thailand declared a National Health Security Act to ensure health security for all Thai citizens in accessing the essential health care without any payment (or a co-payment of 30 Baht in some cases) in four aspects of health: promotion, prevention, care, and rehabilitation.

However, due to inadequate budget and public health capacity in the initial period, the Universal Coverage Scheme could not cover some high-cost treatments and operations such as for chronic renal failure, organ transplants, and antiretroviral therapy (ART).

In 2006, the government added ART for PLHIV as part of the benefit package of the Universal Coverage Scheme, resulting in universal access to ART as the health right for every Thai citizen.

It took Thailand 4 years after the declaration of the National Health Security Act and 14 years after the introduction of ARV treatment in 1992 to fully integrate the ART Programme into the Universal Coverage Scheme.

Now it was time for the country to use what it had learned, the knowledge and know-how in health service structures, policy mobilization, finance and system management, to finally achieve the successful integration of Universal Access to ART.

Thailand began its first ART Programme in 1992. During 2002–2006, the country initiated a triple-drug therapy or Highly Active Antiretroviral Therapy (HAART) Programme under the National Antiretroviral treatment for People Living with HIV/AIDS (NAPHA) project which had been managed by the Department of Disease Control, MoPH, funded by the Global Fund to fight AIDS, Tuberculosis and Malaria (the Global Fund) and partially co-financed by the government. The programme was complemented with activities to build the capacity of the network of service providers to ensure quality treatment and care. Initially, the programme could only provide ARV drugs to a small number of patients and then gradually scaled up as the health service system was strengthened.

“

It took Thailand 44 years after the declaration of the National Health Security Act and 14 years after the introduction of ARV treatment in 1992 to fully integrate the ART Programme into the Universal Coverage Scheme.

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The programme was complemented with activities to build the capacity of the network of service providers to ensure quality treatment and care.

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In 2006, Thailand integrated the HIV Care package into the existing Universal Health Coverage. The package consisted of HIV Counselling and Testing (HCT), ARV drugs, Prevention of Mother-To-Child Transmission (PMTCT), Post-Exposure Prophylaxis (PEP), laboratory testing to monitor treatment, counselling and Positive Prevention (a way of reducing HIV transmission by involving PLHIV in prevention work and strategies).

Prior to the implementation of the ART Programme in 2006, with the collaboration of all key stakeholders, Thailand conducted a self-assessment of its work in this area. The key success factors are summarized as:

- **A strong health care system with country-wide coverage**
- **A sustainable National Health Security policy**
- **A stable economic and financial status**
- **Sufficient know-how for implementation, both technical and managerial**
- **Multistakeholder participation in policy advocacy**
- **A strong civil society network**
- **A drug price negotiating mechanism using the National List of Essential Drugs**
- **The ability to produce low-cost generic ARV drugs domestically**

Policy advocacy for Universal Access to ART in Thailand was conducted with a well-known approach in Thailand called “A triangle that moves the mountain”. The theory describes a large and insurmountable problem as a mountain that can be moved by three key facilitating factors (representing the three sides of a triangle). The factors are (1) political commitment, (2) technical know-how, and (3) civil society mobilization. When the three factors are combined wholly and in a timely manner, the mountain can be moved.

In order to scale up the National ART Programme to sustainable Universal Access to ART, the most critical part is to advocate policymakers to be invested in the programme. To achieve the goal, evidence-based research and information must be available to support the government policy and decision-making. The key points for consideration are:

COST-EFFECTIVENESS

Cost-effectiveness analysis appears to be the primary issue of interest for Thai economists and the Finance Ministry. Prior to the 2006 integration of the HIV Care package, the MoPH conducted a cost-effectiveness analysis study by creating various possible future scenarios to forecast numbers of HIV patients, the budget, and optimization in each model. The key message for policymakers relating to cost-effectiveness is that AIDS is one of the few chronic diseases where, given appropriate and continuous treatment, people’s lives can be dramatically changed from a family burden to an opportunity for the nation. Instead of lying around waiting for deaths to take them and become a burden to society, PLHIV can become healthy, productive and enthusiastic for the future.

BUDGET BURDEN AND PROGRAMME SUSTAINABILITY

From a budget management perspective, the most important issue is to forecast the budget burden for the country and to evaluate the long-term sustainability of the funding source. It has been widely recognized that ARV drugs increase survival and enhance the quality of life of PLHIVs. Once the country starts an ART Programme, the number of ART patients will increase over time. Whether the country can support the programme’s future annual budgets is of concern to most policymakers. In search of an answer, Thailand conducted an estimation study prior to policy implementation by forecasting a future scenario of the number of people living with HIV and the budget required in the next 10 to 20 years using the AIDS Epidemic Model (AEM) tool (Figure 6). The results from the model provided pragmatic information to policymakers regarding the long-term sustainability of the programme budget. Even though the estimated number of people living with HIV from the model is very close to the actual number of patients accessing ART recorded in the national HIV registry, Thailand is now spending less than half of the estimated budget each year. The main reasons are due to the ever-decreasing ARV drug prices in the global market from competition from generic ARV drugs. The impact of this was that the cost of first-line ARV drugs is lower than half of the initial drug price when the programme started in 2007. National mechanisms to control drug prices, as well as other service costs, should be proposed to policymakers in order to ensure long-term programme financing.

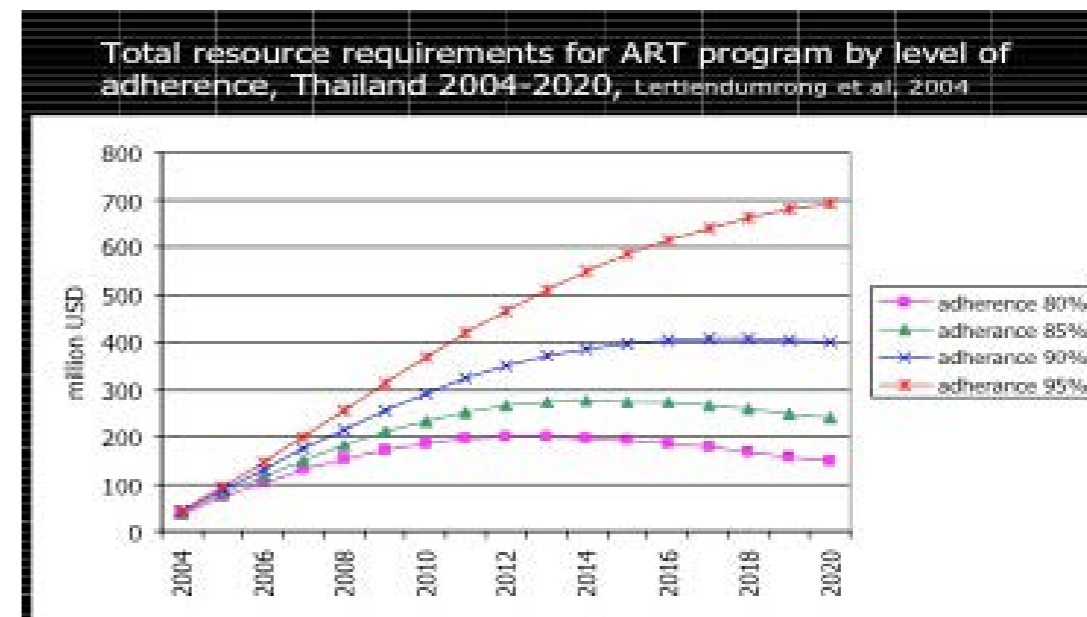


Figure 6: AIDS epidemic model

FEASIBILITY

Health service management at the facility level vastly differs from that at the national level. The former operates under the principle of focusing on the successful treatment outcome for an individual. The latter, on the other hand, has to operate under a public health model which includes many other dimensions such as the economy, resource management, equity and accessibility. Moreover, scaling up a pilot project to a national programme requires the strengthening of health service capacity in areas such as drug inventory, laboratory services, counselling networks, referral networks, monitoring and evaluation, capacity building and personnel workload.

EQUITY IN ACCESSING PUBLIC RESOURCES

Every country normally encounters more than one public health problem and requires more than a single intervention, management, or administration to resolve issues. In a resource-limited setting, health needs assessment and health needs prioritization are the essential components to ensure equitable access to resources for all populations.

VISION, MISSION AND STRATEGY

The National Health Security Office established the ART Programme with a goal matching to the vision of the organization: that the **health security system ensures equitable accessibility, public confidence and provider satisfaction** and aligns with the strategic goal of Thailand National AIDS Programme: **Thailand AIDS’s Zero By 2015**.

The overarching goal of Universal Access to ART is to reduce mortality and morbidity of PLHIV through early diagnosis and early treatment. This goal is supported by three core business strategies:

EQUITY

Everyone has equitable access to health service without obstacles.

QUALITY

The quality of medical supplies and treatment services must adhere to the national standard.

EFFICIENCY

Budget management system is efficient, transparent and accountable.

MANAGEMENT STRUCTURE, ROLES AND RESPONSIBILITY

The National AIDS Programme structure is comprised of the highest governing body, the National AIDS Committee (NAC) which provides directions and strategy for HIV/AIDS prevention and treatment, and the two key implementing organizations: the Ministry of Public Health and the National Health Security Office.

THE MINISTRY OF PUBLIC HEALTH acts as a health regulator and health service provider in the health system. The MoPH also sets and monitors the national HIV/AIDS indicators and is responsible for primary prevention intervention as well as standards of care services among service providers.

THE NATIONAL HEALTH SECURITY OFFICE as the purchaser and system manager in the health system is responsible for providing HIV/AIDS treatment and care, HCT and Positive Prevention.

In addition to these two key players, there are other government agencies, and private sector and civil society organizations collaborating in both policy and implementation levels:

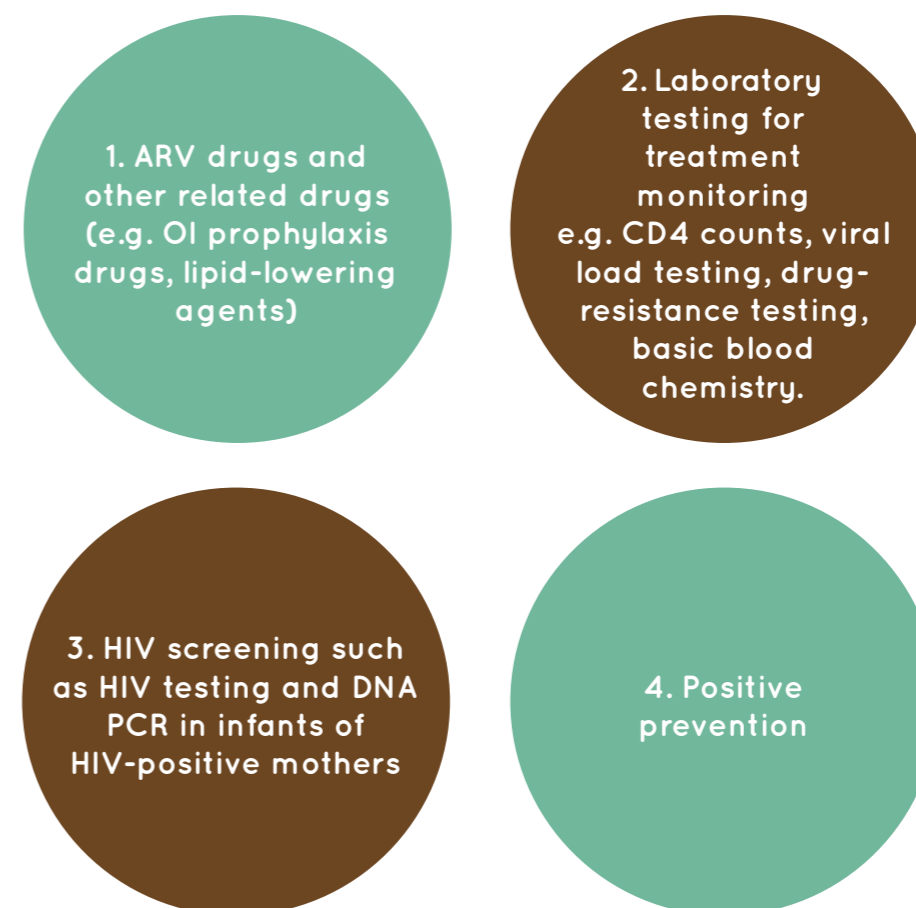
- The Social Security Scheme (SSS) and Civil Servant Medical Benefit Scheme (CSMBS) act as purchasers for employees and civil servants respectively.
- Global Fund Principal Recipients and Sub-Recipients are responsible for the HIV Treatment and Care Programme for migrant workers in Thailand.
- Academics, professional associations, and international agencies provide technical and technological know-how.
- PLHIV networks, civil society and NGOs take the lead in mobilizing social movements.

OVERVIEW OF ART PROGRAMME MANAGEMENT IN THE UHC SYSTEM

ART programme management consists of the following components:



The benefit package for PLHIV under the Universal Access to ART programme is comprised of:



ARV DRUGS AND OTHER-RELATED DRUGS

ARV drugs under UHC are provided for three purposes:

1. Treatment (Irrespective of CD4 counts)
2. Prevention of Mother-To-Child Transmission (PMTCT)
3. Post-Exposure Prophylaxis (PEP)

ARV drugs provided under UHC are categorized into three groups according to the protocol:

- First-line ARV
- Second-line ARV
- Third-line ARV

ESTABLISHMENT OF THE ART PROTOCOL UNDER UHC

Thailand has established a pricing control mechanism through the National List of Essential Drugs which is a national compilation of all essential drugs listed by their generic names for the use of all government health service providers. The list is declared by the National Drugs Committee in which the subcommittee of the National List of Essential Drugs makes the selection of the medicines on the list. The ARV drugs protocol provided by UHC (Figure 7) are those included in the National List of Essential Drugs only. In practice, the protocol selection represents balance in two ways:

1. Clinical balance

Using the Thai National ART Guidelines developed by the National ART Guideline Working Group comprised of doctors, academics, and health advisors from the MoPH and other agencies to approve the clinical efficacy and clinical criteria of each ARV drug protocol.

2. Economic balance

Using the National List of Essential Drugs developed by the subcommittee of the National List of Essential Drugs comprised of doctors, economists, and advisors from other agencies to approve cost-effectiveness and the long-term affordability of the system as a whole.

SETTING UP ARV DRUGS LIST UNDER THE UHC

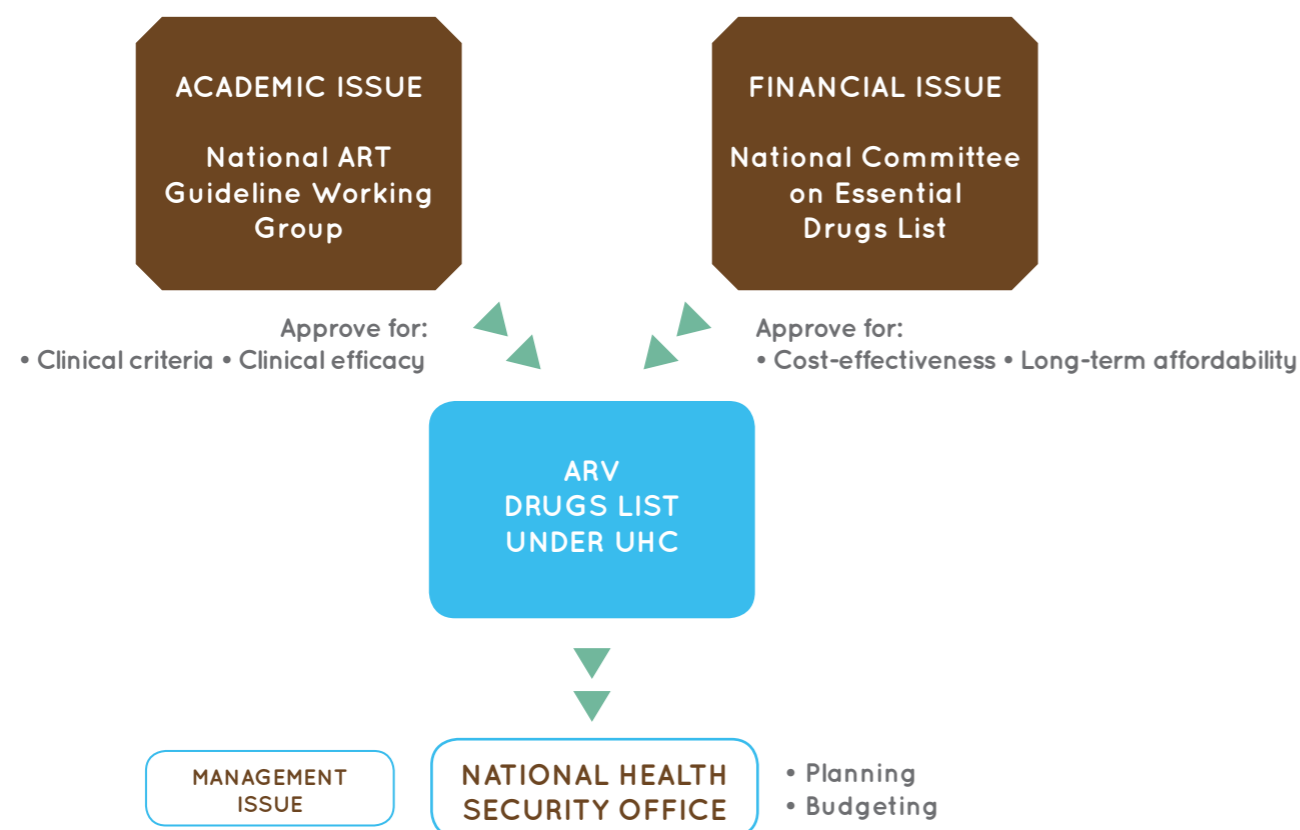


Figure 7 : Setting up the ARV drugs list under UHC

ARV PROCUREMENT AND LOGISTICS SYSTEM

Drugs management under the NHSO for ARV drugs and lipid-lowering agents is implemented using a centralized management system. Drugs procurement and inventory is managed at the national level and delivered to the service providers according to the actual usage. The organization in charge of drugs production, delivery, central inventory and procurement is the Government Pharmaceutical Organization (GPO). Drugs procurement occurs on a quarterly basis. A committee comprised of the NHSO and other stakeholders negotiate prices at the time of procurement. If the generic ARV drugs are being produced by GPO, the pricing is set using generic drugs global pricing as a reference.

Additionally, the GPO is responsible for delivering ARV drugs from central procurement to all service providers according to the actual usage. Service providers must record every ART service provided to patients, including ARV drugs prescribed, into the national AIDS information system developed by the NHSO. These individual registries are compiled at the central database where drug prescription data will be calculated daily for each service provider before transferring to the GPO for the delivery process (Figure 8).

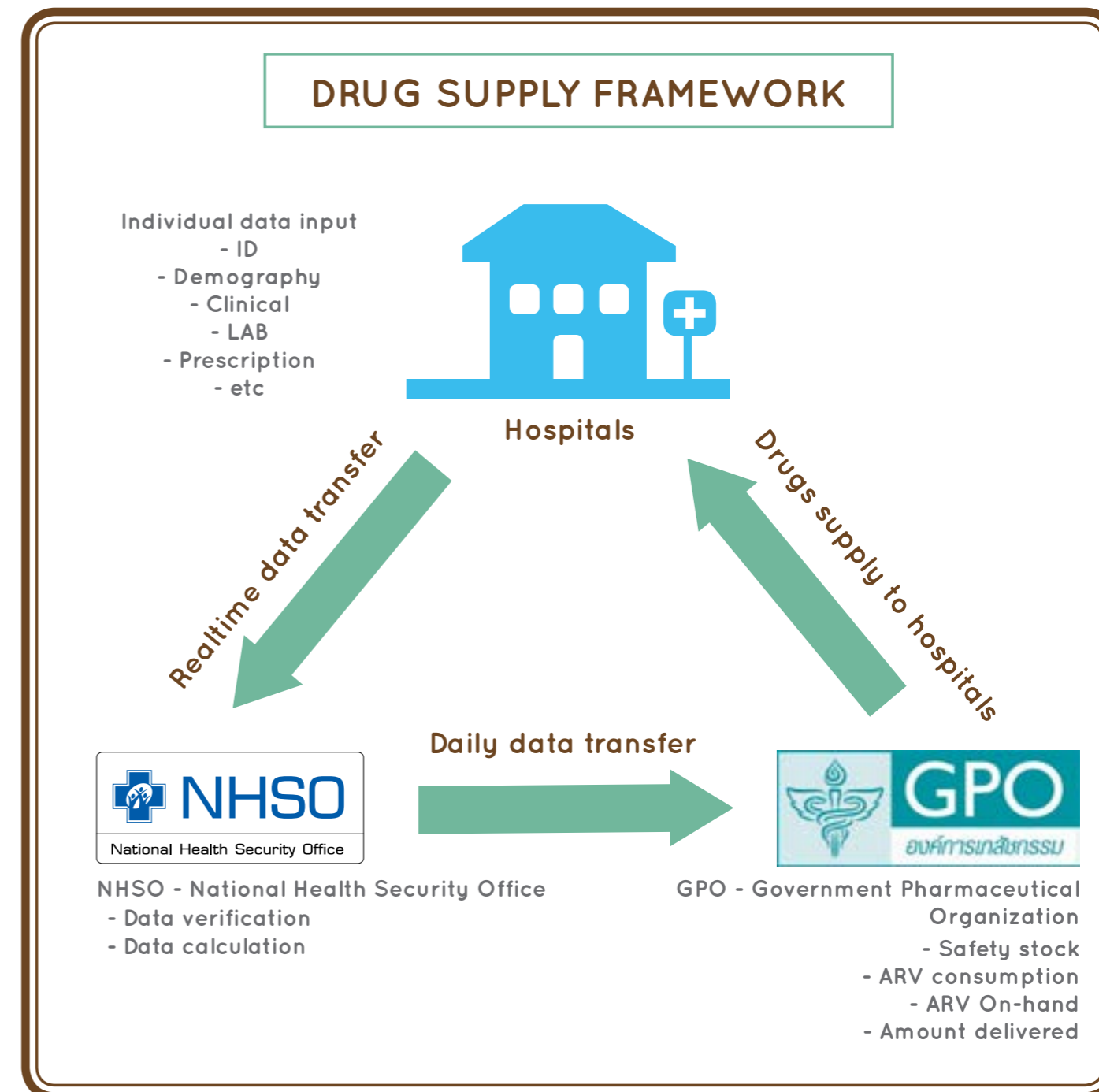


Figure 8: Drug supply framework

FINANCIAL ASPECTS OF THE ART PROGRAMME

Thailand spends about US\$ 300 million on the HIV Programme, which is about 2 percent of the total health expenditure, and 0.09 percent of GDP. More than 70 percent of the budget is spent on the costs of treatment including ARV drugs, OI treatment and HIV screening through three different health care schemes:

1. The Civil Servant Medical Benefit Scheme (CSMBS) provides health benefits for government employees, pensioners and their dependents. The payment is an open-ended budget scheme in which the government provides monetary reimbursement to service providers according to the fees dictated.

2. The Social Security Scheme (SSS) is a health benefit scheme for employees in the private sector. The budget system is a combination between open-ended and close-ended, similar to the NHSO (more details are described below.) The annual budget is from the Social Security Fund, which is contributed equally by the government, employers and employees as a tri-party contribution.

3. The Universal Coverage Scheme (UCS) is the health benefit scheme for Thai citizens who are not covered by the health benefit schemes mentioned above. The budget is a combination system in which the government supports the total budget. The health benefit can be divided into two types of budget:

3.1. Capitation payment: The main budget is used for the national UCS in which the NHSO manages the budget by decentralizing the budget directly to service providers according to the population size of the area of each service provider. Capitation is a close-ended budget which covers comprehensive health care, OI treatment, OI prophylaxis and other costs not covered by the HIV/AIDS budget.

3.2. The HIV/AIDS budget is an additional open-ended budget supported by the government to provide Universal Access to ART. This additional budget is managed centrally as a vertical programme to cover extra costs for HIV care not covered by capitation e.g. ARV drugs for HIV patients, laboratory testing for treatment monitoring, HCT, PCR for infants born from HIV-positive mothers.

THE FINANCIAL MECHANISM OF THE ART PROGRAMME

The benefit of managing Universal Access to ART as a vertical programme is that central budgeting allows flexibility in the central procurement of ARV drugs; and service providers reimburse the cost after service completion and report to the NHSO. **With this system, patients can access ARV drugs from any service provider in the country under the NHSO.**

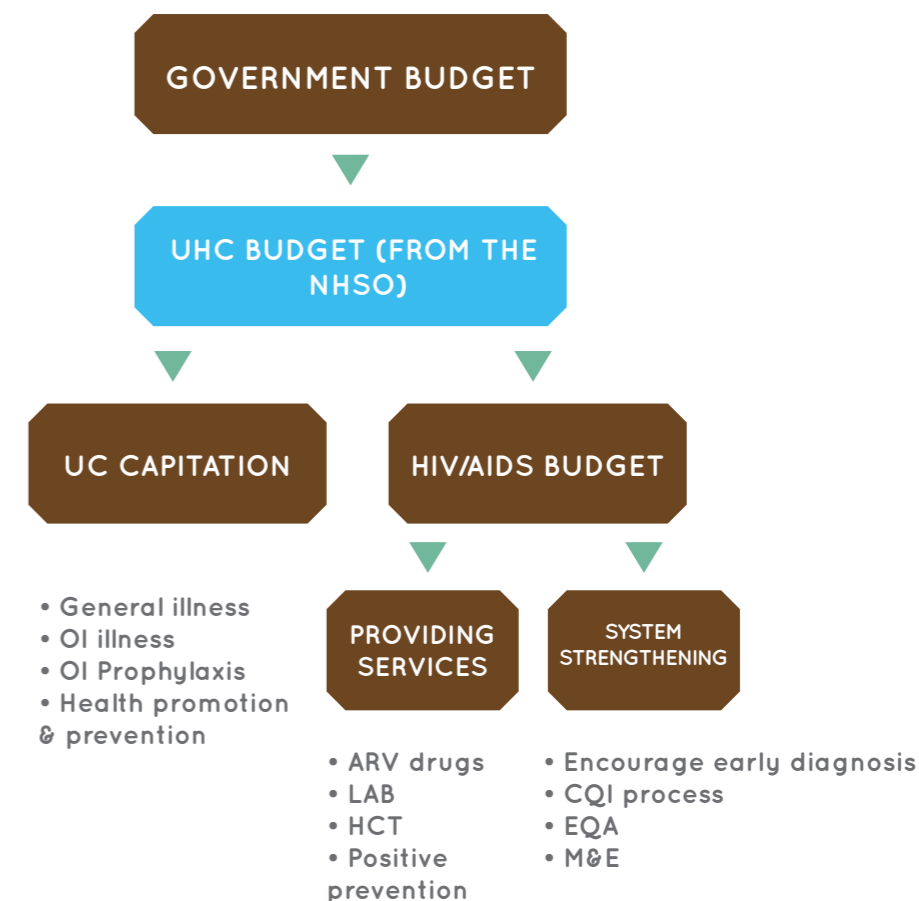


Figure 9: Budget for universal access to ART

THE BUDGET FOR UNIVERSAL ACCESS TO ART CAN BE DIVIDED INTO TWO MAIN BUDGET CATEGORIES: (Figure 9)

BUDGET FOR REIMBURSEMENT

About 98.5 percent of the total budget is used in procuring drugs and medical supplies, laboratory reimbursement and supporting PLHIV volunteers networks.

BUDGET FOR SYSTEM STRENGTHENING AND SUPPORT

About 1.5 percent of the total budget is used to promote access to HIV services, e.g. HCT, capacity building of personnel, care, External Quality Assurance (EQA), laboratory accreditation and database development for monitoring and evaluation.

UNIT COST AND COST STRUCTURE OF ART PROGRAMME (2013)

The NHSO spends about US\$ 100 million each year on the Universal Access to ART Programme under UHC and has been maintaining the expenditure at this level for 6 years (2009-2014), even though the number of PLHIV has increased every year from 116,000 in 2009 to 174,000 in 2013 (Figure 10).

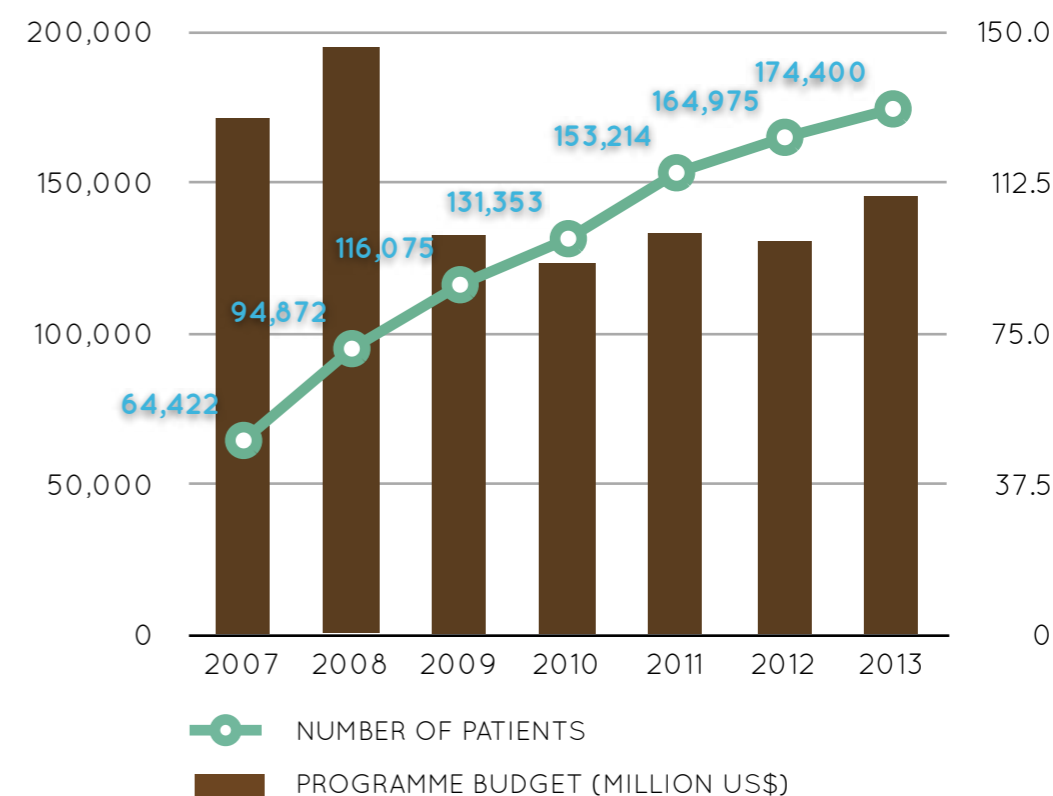


Figure 10 : Number of patients vs programme budget

The main reason that has allowed the NHSO to cope with the increasing number of patients with the same amount of budget is the dramatic drop in the price of ARVs within the country by more than half in the past five to six years. In 2013, the price of first-line and second-line drugs were US\$ 391.60 and US\$ 1,202.40 per person per year respectively (see Table 1) (Figure 11).

UNIT COST (USD)	1 ST LINE PROTOCOL	2 ND LINE PROTOCOL	REMARKS
ARV drugs	286.60	1,103.00	Average cost of ARV consumption
LAB	85.20	79.30	2 CD4 + 1VL + 2 Blood chem. + DR (allocate total DR cost to all pt) + specimen handling
Capacity building	8.50	8.50	Personnel training, strengthen quality of care, M&E (allocate total cost to all pt)
Others	11.30	11.30	Peer group activities and facility workload (allocate total cost to all pt)
	391.60	1,202.40	Average unit cost for all patients US\$ 481.70

Table 1: Price of ARV drugs and relevant cause

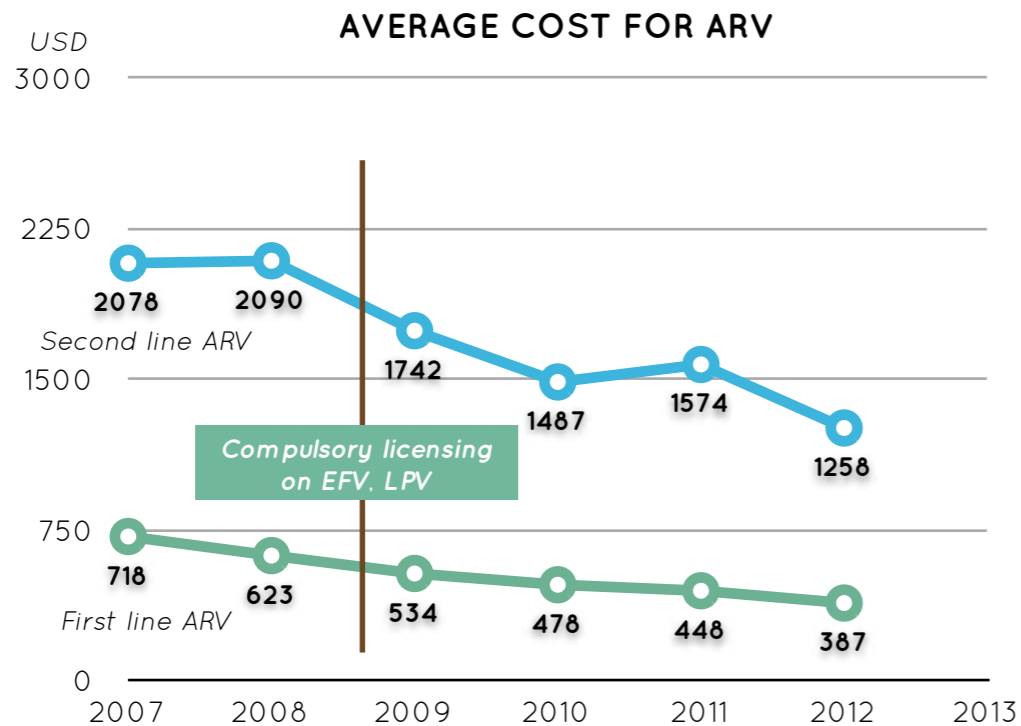


Figure 11: Average cost of ARV drugs

NETWORK OF ART PHYSICIANS AND HIV EXPERTS

The NHSO established a network of ART physicians and HIV experts for the national ART Programme to ensure that the quality of care adhered to the Thai National ART Guidelines. Each level of physicians and experts has different roles and responsibilities as follows:

1. ART physicians refer to any general doctors working in service providers from the level of community hospital onwards. They are allowed to prescribe all of the first-line ARV drugs; however, prescriptions of the second-line drugs require approval from the upper-level HIV experts.

2. HIV Experts refers to doctors with expertise in HIV/AIDS treatment and practice at the level of general hospitals onwards. They are qualified according to NHSO's criteria and have authority to approve ART physicians to prescribe second-line drugs.

3. Third-line ARV Experts are doctors with expertise in HIV/AIDS treatment and practice in regional hospital level onwards. They are qualified according to NHSO's criteria and have authority to approve ART physician for prescription of the 3rd-line drugs.

4. Regional AIDS Committee is a committee in the regional level established to assure the quality of services to adhere to the Thai National ART Guideline.

AUDIT

The two types of the ART auditing system are:

1. Medical Audit

The medical audit, or medical record audit, provides monitoring and quality assurance of services provided by the NHSO. The NHSO's regional branch and Regional AIDS Committee are responsible for conducting medical record audits in their areas of responsibility.

2. Financial Audit

The financial audit is a managerial tool to monitor expenditures and reimbursement for both services and medical supplies, especially ARV drugs. The NHSO Head Office and the NHSO's regional branch collaborate on financial audits with the NHSO Head Office compiling the individual service provider financial audit report and providing the audit tools.

CONCLUSION

Access to health care services is a basic health right for the citizens of a country, varying in the services provided according to country context and financial capacity.

Universal Access to ART is one of the components of social protection which the government should provide for their citizens.

Moreover, Universal Access to ART has been evaluated as a cost-effective investment at the national level. However, since ART is a life-long treatment, the challenges for the NHSO are sustainability in service provision and budget management.

The key to a sustainable ART Programme is domestic funding with the least reliance on external support due to the unstable nature of international funding. Meanwhile, citizens should not be burdened with the cost of treatment.

Thailand provides 100 percent coverage of health benefits for its citizens through three health schemes supported by the government. It can be said that every Thai citizen has the right to access

basic health services without having to pay for them by themselves.

Since all the health benefits of the country are supported by the government, the country is cautious about its investment and about adding additional benefits to the health insurance scheme which could add to the future financial burden.

Despite this, the quick advancement of health technology may help reduce health costs, especially for developing countries with low negotiating power. Ensuring that investment in health is affordable should be the concern of all countries, and not for any single country alone. A successful endeavor will require global collaboration to control costs.



Universal Access to ART is one of the components of social protection which the government should provide for their citizens.



CHAPTER 5

The Information System for the Universal Access to ART Programme

The Information System for the Universal Access to ART Programme

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The Information System for ART in Universal Health Coverage was developed to record the data of the benefit package, laboratory results and ART service provision. In 2006, the NHSO initiated the information system, called the National AIDS Program (NAP), which later became fully functional in April 2007. NAP has been designed to link with the existing HIV Programme to ensure maximum impact for users in various agencies and sectors. Moreover, the system was developed to compile and create a balance between data entry by service providers and data application by the NHSO and other users for different purposes including budget management and reimbursement. This real-time, centralized database system has led to the increase of coverage and equitable access to HIV/AIDS care services in Thailand.

DEVELOPMENT OF THE ONLINE INFORMATION SYSTEM

The previous information system for the HIV/AIDS Programme was an offline system with a number of limitations. For example, the system could not investigate individual data, benefits, number of times accessing services, and reimbursements. Batch data processing (not real time) resulted in data duplication and inaccuracy in cost calculation and data analysis. It also affected drug inventory and logistics. With an incomplete database, it was challenging to harmonize demand and supply in the programme, which eventually caused inefficiency in resource management and the provision of services. Facing all of these difficulties, Thailand decided to change from an offline to an online system.

The development of the online information system began from a framework of conventional data management and variables collected from the three main programmes: (1) National Access to Antiretroviral Programme for People with HIV/AIDS (NAPHA) under PR-DDC, a Global Fund project, Department of Disease Control, (2) AIDS-OI project under Bureau of Epidemiology, Department of Disease Control and (3) Perinatal HIV Intervention Monitoring System (PHIMS) by the Department

of Health (data collection of pregnant women screened for HIV, ARV data, and baby's formula data for infants born from HIV-positive mothers).

After compiling all variables, the team reviewed the steps in ART services related to benefits, i.e. what does a patient have to do when entering the service? Those steps include HIV counselling and testing, HIV screening, registration, recording the data of each service received, HIV testing, ARV drugs, and the laboratory results of CD4, HIV viral load, drug resistance and blood chemistry tests.

The initial development of the online system encountered various challenges in transferring the data of 90,000 patients from the NAPHA project due to the large amount of data, variability of data, diverse collection tools and other variables. The NHSO programme development team also faced resistance from some agencies who would not cooperate or viewed it as a futile effort to transfer the data to the new system. After visiting offices in the field and requesting the personnel to extract the data, NHSO team filtered and saved the data of 50,000 cases.

NAP PROGRAMME

The NAP programme (*Figure 12*) is an online system that uses a web application for treatment monitoring, reimbursement, laboratory testing, and other benefits. The programme has been designed to segregate the types of services provided and the number of services provided (since not all services occur on the same day). The interface of NAP is composed of the following menus:

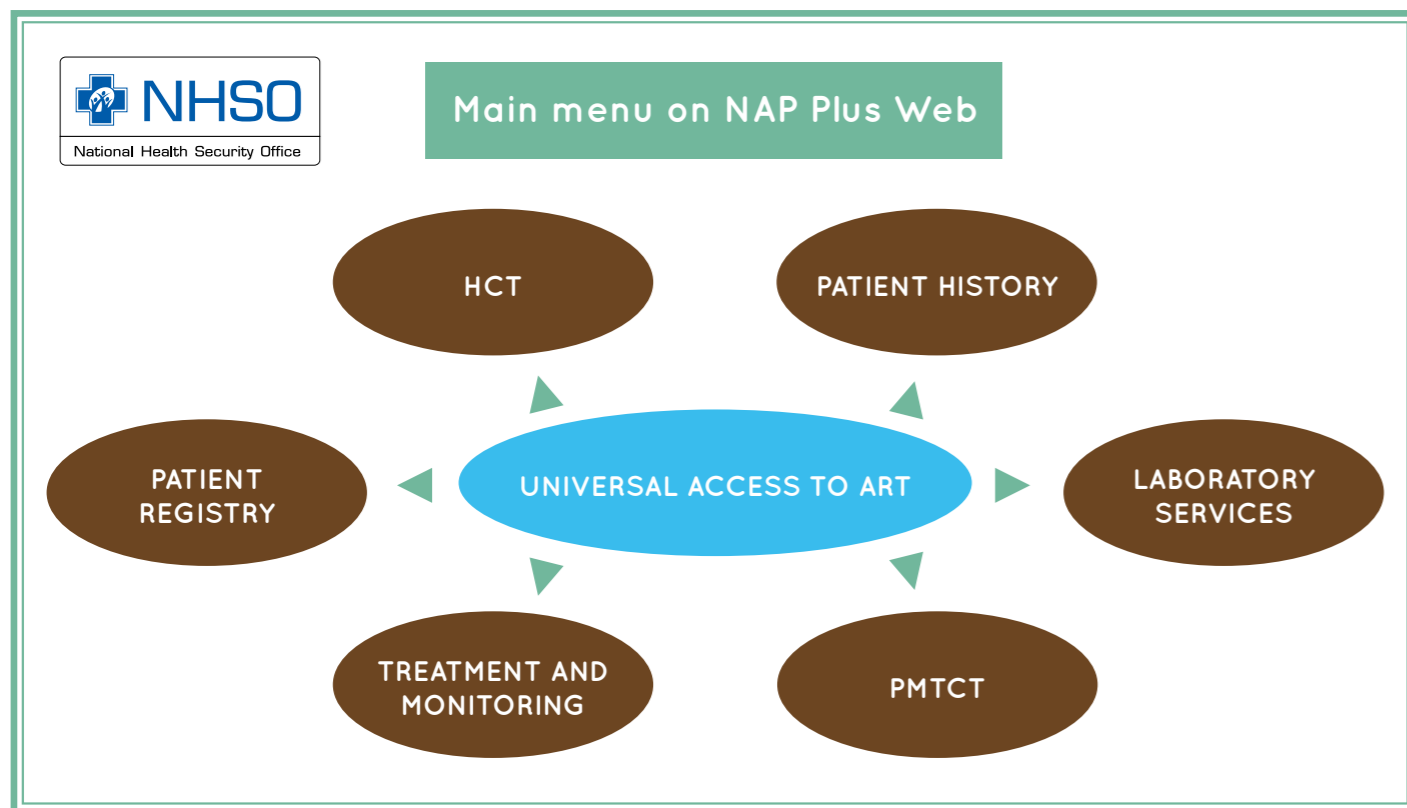


Figure 12: Main menu on NAP Plus Web

HCT
HCT uses the 13-digit National Identification number (which can be disclosed prior to a negative test result)

REGISTRATION
Registration converts the 13-digit National ID number into a NAP ID. After that, patients do not need to disclose actual names or ID numbers again, but then use their NAP ID to access services. NAP ID is stored in a single central database and appears as D4-Year-xx.

PMTCT
Prevention of Mother-To-Child Transmission

LABORATORY SERVICES ARE COMPOSED OF

- Laboratory requests
- Laboratory results

TREATMENT AND MONITORING
Treatment and monitoring records data according to the actual number of visits for

- Counseling
- OI Screening
- Drug prescriptions (Prescribed Yes/No)

There are menus for other benefits in NAP including:

CONDOMS FOR PLHIV

POSITIVE PREVENTION (for sero-discordant couples)

PROPHYLAXIS for

- PMTCT
- Post-Exposure Prophylaxis

PATIENT HISTORY USING NAP ID

NAP has been designed to link with both the internal database and services (e.g. reimbursement, drug amount submitted to GPO) and external database (e.g. linked with the civil registration database of the Ministry of Interior for updates on births and deaths) and to confirm health benefits for PLHIV among the three health schemes.

SYSTEM ADVANTAGES AND LIMITATIONS

The development of NAP has greatly enhanced service coverage and equity in access to care.

ADVANTAGES

1. Real-time database

Aside from contributing to supply management, NAP supports PLHIV to access ARV treatment from anywhere in the country. The real-time system stores data at a single central database which allows service providers to access the database from hospitals anywhere and obtain interconnected information such as patient's health benefits, services received, and drug regimens – for further diagnosis and treatment.

2. Harmonization of supply and demand

Meetings with those who use the data are frequently organized to receive and provide feedback, including raw and analysed data. Data is then used for quality assurance and the development of technical know-how.

3. Confidentiality

Replacing the ID number with the NAP ID by using encrypted ID and restricting user access for various responsibilities for individual data ensures the confidentiality of patients. Moreover, individual data cannot be shared with any agencies.

4. Claim Centre

The NHSO database is currently linked with other health schemes, and will include the migrant workers database in the future. There is a plan for the NHSO to act as a central claim centre for ARV treatment and related laboratory services.

LIMITATIONS

The limitations of the system are related mainly to the basic infrastructure of the internet network. Many service providers lack internet access or online services. IP addresses are shared among computers in the same agency creating cyber-security issues. Lack of sufficient computer hardware and software is also a key constraint faced by the system.

CHALLENGES/FUTURE DEVELOPMENT

1. Utilization of existing data for future planning, improvement of service quality, and establishment of a service provider network to build the capacity of hospitals and networks.
2. Variability of tools from various health schemes needs to be streamlined.
3. There is staff burden in duplicate data entry because the NAP cannot be linked to the hospital database and therefore, staff need to re-enter data into the NAP system to report to the NHSO.

RECOMMENDATIONS FOR OTHER COUNTRIES

The information system for ART and other health care programmes should be designed with careful consideration of the country context relation to both public health and IT systems. The vital component for the development of information system is basic IT infrastructure such as computer hardware, data centre servers, network broadband and capable

personnel such as technical IT officers and clinical officers who need to work together closely and consistently. Most importantly, the development of the system must include ensuring confidentiality of data and consider adopting a real-time single centre database for efficient supply management and effective monitoring, all of which contributes to equitable access to ART in the long run.

CHAPTER 6

Monitoring and Evaluation Framework for the Universal Access to ART Programme

Monitoring and Evaluation Framework for the Universal Access to ART Programme

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Thailand Ministry of Public Health – U.S. Centers for Disease Control and Prevention Collaboration

1 MONITORING AND EVALUATION FOR CONTINUOUS QUALITY IMPROVEMENT (CQI)

Monitoring and Evaluation (M&E) is the cornerstone of evidence-based decision-making on policy development and planning for programme quality improvement. It has been implemented by the NHSO, in collaboration with the Department of Disease Control, Thailand Ministry of Public Health and the Thailand MoPH-U.S. CDC Collaboration. A “monitoring system” is the integrated routine tracking of the key information about the facility and programme-based services along the cascade of HIV counselling and testing, care and antiretroviral treatment, clinical outcomes and the impacts (survival). It regularly provides a “snapshot” of

the programme status. “Evaluation” is a systematic process that has been periodically implemented to determine the merits of the existing infrastructure and the actions implemented towards the reduction of new AIDS-related deaths and increasing the quality of life of persons living with HIV/AIDS. Furthermore, the potential programme intensity, efficiency and effectiveness of innovative technical recommendations have been included in the evaluation agenda intending to use the data for policy decision-making.

2 MONITORING AND EVALUATION FRAMEWORK FOR UNIVERSAL HEALTH COVERAGE, THAILAND

2.1 Key elements of monitoring and evaluation
The ultimate goal of the M&E framework is to improve the “Quality and Outcomes” of the “Continuum of Prevention, Care and Antiretroviral Treatment”, intending to achieve the national programme’s goal of universal access, reduction of deaths and improved quality of life of persons living with HIV. The key elements for the M&E framework include the key information along the cascade of HIV-related service delivery, including HIV counselling and testing, care and antiretroviral treatment, the outcomes on suppression of viral

replication and the impacts on the reduction of morbidity and M&E, including the facilitation of using M&E data for programme improvement at all levels (Figure 13).

2.2 Organizational structure for programme monitoring and evaluation
The National Health Security Office, in collaboration with the Thailand Ministry of Public Health has set the national organizational structure for programme M&E, including the facilitation of using M&E data for programme improvement at all levels (Figure 14).

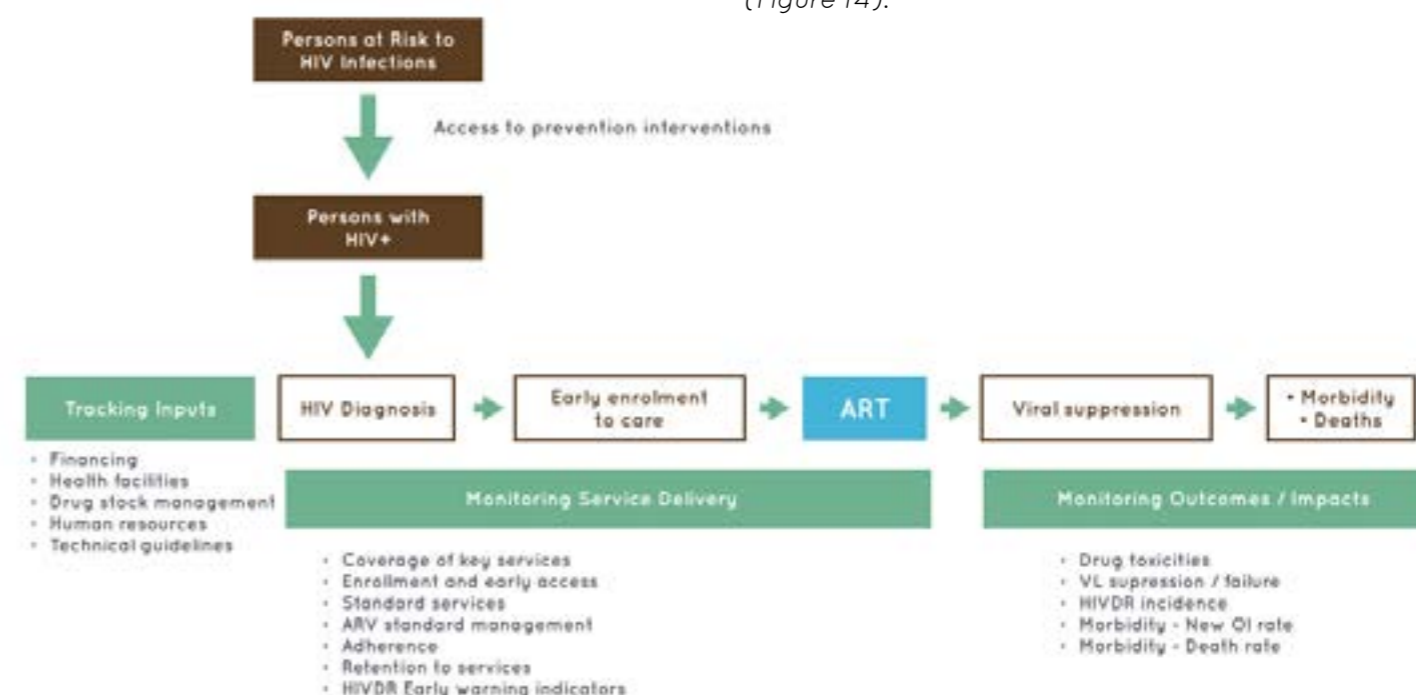


Figure 13: Cascade of the key elements for the M&E framework, Universal Health Coverage, Thailand

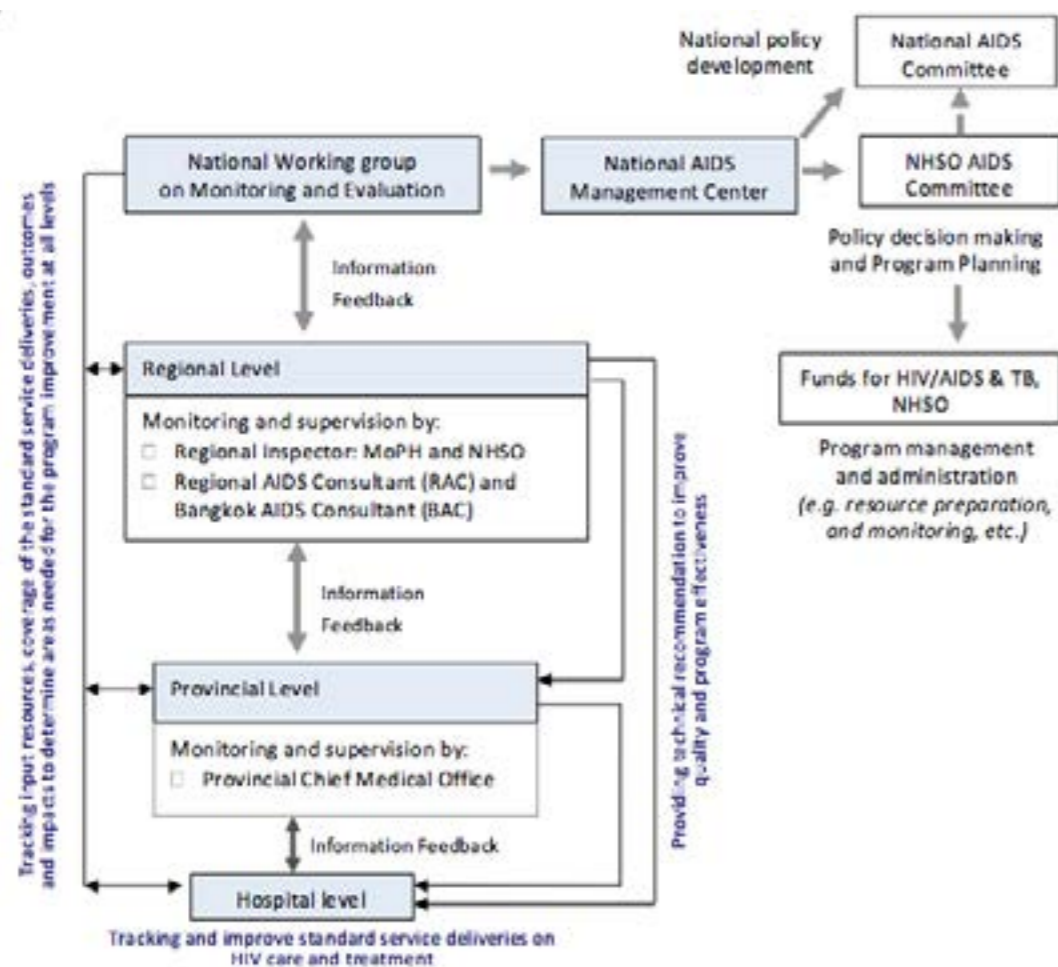


Figure 14: Organizational structure for M&E of the HIV care and antiretroviral treatment programme, Thailand

DATA SOURCES	DESCRIPTION	M&E ELEMENTS
1. NAP-Plus	A national electronic-based "Patient Monitoring System", implementing by the NHSO since 2007. It has been used for policy decision-making and programme improvement at all levels (hospital, provincial, regional and national levels). It has been expanded to monitor all PLHIV under the governmental health benefits (UC, SSO and CSMBS) in October 2012.	<ul style="list-style-type: none"> Cascade of service deliveries (HCT, care/ART, and PMTCT) Key indicators on quality services, service retention and adherence, treatment outcomes and impacts on survival
2. ART Facility Annual Survey	A national annual survey, implemented by the Bureau of AIDS and STI, MoPH since 2011. It has been used to track the system infrastructure across 943 ART facilities, and 178 laboratory centers nationwide.	<ul style="list-style-type: none"> Service infrastructure and human resources Quality of ARV stock and supply management
3. HIVQUAL-T annual survey	An annual facility-based survey to assess the quality of hospital services according to the standard guidelines. The integration of HIVQUAL-T as a tool for hospital accreditation is being processed.	<ul style="list-style-type: none"> Standard service deliveries at hospital level
4. Sentinel surveillance	<p>4.1 Annual or biennial national survey, implemented by the Bureau of Epidemiology, to monitor the coverage of HCT in selected population in sentinel provinces</p> <p>4.2 Biennial HIV drug resistance surveillance has been piloted by the Bureau of AIDS and STI in selected sentinel hospitals.</p>	<ul style="list-style-type: none"> Coverage of HCT among 15-49 year-olds and key affected populations Prevalence of primary and acquired HIVDR among PLHIV with ART

Table 2: Tools for M&E

2.3 Key M&E indicators and measurement tools

2.3.1 M&E indicators

The achievement of the full benefits of Universal Coverage, indicated as the accomplishment of the full cascade of HIV care services, has been considered as one of the programme's greatest successes towards the reduction of AIDS mortality and improving the quality of life of PLHIV. Various key indicators were designed for programmatic enhancement for more efficient case-finding, earlier enrolment and retention in pre-ART care, timely initiation of ART when eligible, and lifelong retention and adherence. A set of key M&E indicators was designated. The cascade of programme responses and the key performance indicators (KPI) that have been commonly used for the programme monitoring are shown in Figure 15. The description of monitoring indicators is described in Appendix A.

2.3.2 Tools for monitoring & evaluation

Monitoring Tools: For programme monitoring, four data sources have been currently used to monitor key indicators and related events (Table 2).

Evaluation Tools:

Complementary systematic evaluations or programme reviews have been periodically conducted to assess the performance and effects of the programme. Mathematical modeling, including HIV projection and estimation and health statistics (cost-effectiveness and cost-benefit analysis), was also often undertaken to project various scenarios for programme planning and evaluating impact. Triangulation of multiple data, especially the in-depth analysis of the routine monitoring data, NAP-Plus, has proven sources of robust information. The results have been used to address the key issues needed for policy decision-making, especially the decision on the revision of the Universal Coverage health benefits or the improvement of the programme design in the management cycle. Other key issues were the policy for the early initiation of ART by CD4 < 350 cells/mm³ (Figure 16), UC benefits for viral load screening, and third line ARV.

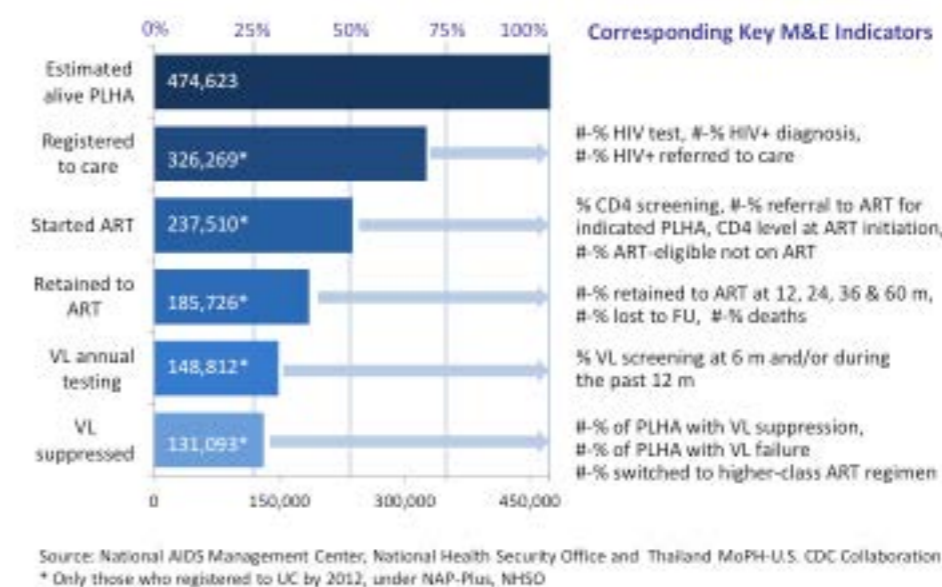


Figure 15: Cascade of HIV care and key indicators, national M&E framework, Thailand

Estimation of PLHA with ART, Related Impacts and the Cost-effectiveness Analysis
ART Forecasting Modeling for Policy Advocacy to Implement the Early ART Initiation, August 2012

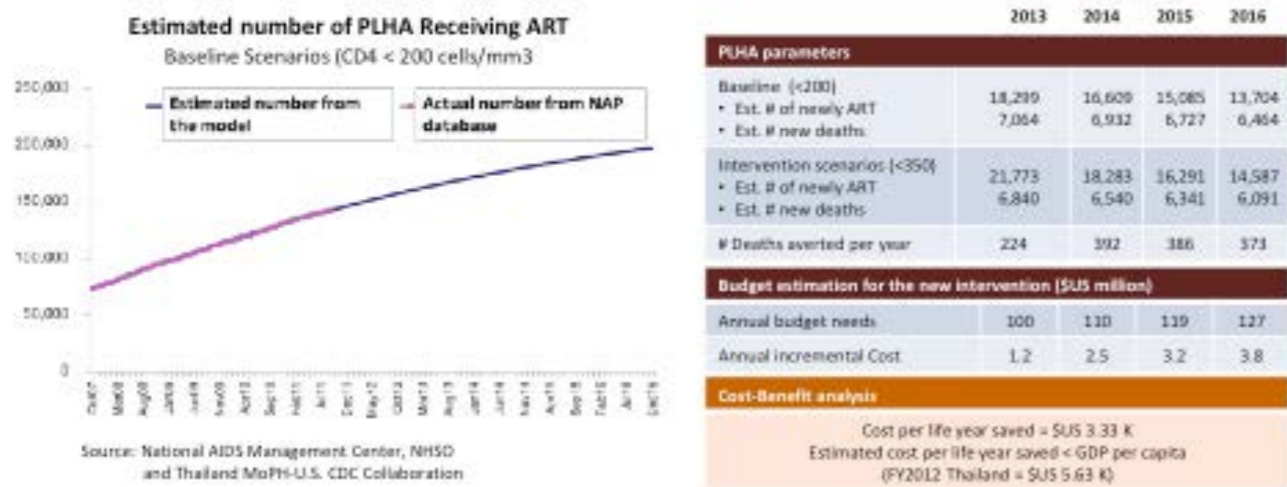


Figure 16: Example of utilization of M&E data at national levels

2.4 Strengthening the use of M&E data for programme improvement

M&E is the cornerstone of evidence-based policy decision-making and planning for programme quality improvement. The critical aspects for using M&E include strengthening management information systems to ensure they are standardized and streamlined, the accessibility of reliable M&E data by concerned stakeholders and building human resources for interpreting M&E data in order to create actions for improvement.

2.4.1 One standardized and streamlined monitoring and evaluation framework

One standardized M&E framework was endorsed by the National AIDS Committee in alignment with the national strategy. The national M&E framework with a defined set of core indicators was agreed on by all partners and stakeholders. It considers the necessary updates on ARV drug policies, scientific knowledge and practices. The harmonized national patient monitoring system (NAP-Plus) across all health care schemes and the streamlined management information system have been set up. The one data set has been used to regularly generate standard monitoring reports, ensuring the availability and accessibility of monitoring data for programme improvement at all levels (national and sub-national levels, including hospitals). In addition, a clearly defined coordinating mechanism to do periodic evaluations and programme assessments has been initiated through the monitoring and evaluation working group of the National AIDS Committee.

2.4.2 Strengthening accessibility of NAP-Plus data for programme management and monitoring

The standard operational procedure for the utilization of NAP-Plus has been developed. Using epidemiological knowledge and informatics technology, monitoring reports are generated systematically and have been used by health care providers at all levels (Figures 17 and 18) to flag areas needed for programme improvement.

2.4.3 Building the capacity of human resources to use M&E

Human and institutional capacity building has been implemented in alignment with the M&E organization structure (Figure 13) to facilitate "Continuum Quality Improvement" networking. In 2012-2013, the NHSO, in collaboration with DDC and technical collaborators, developed M&E guidelines and standard operating procedures for data which have been implemented nationwide through the training of the trainers programme in order to increase the capacity of public health and clinical providers to access and use M&E data for quality improvement at the facility, subnational and national levels.

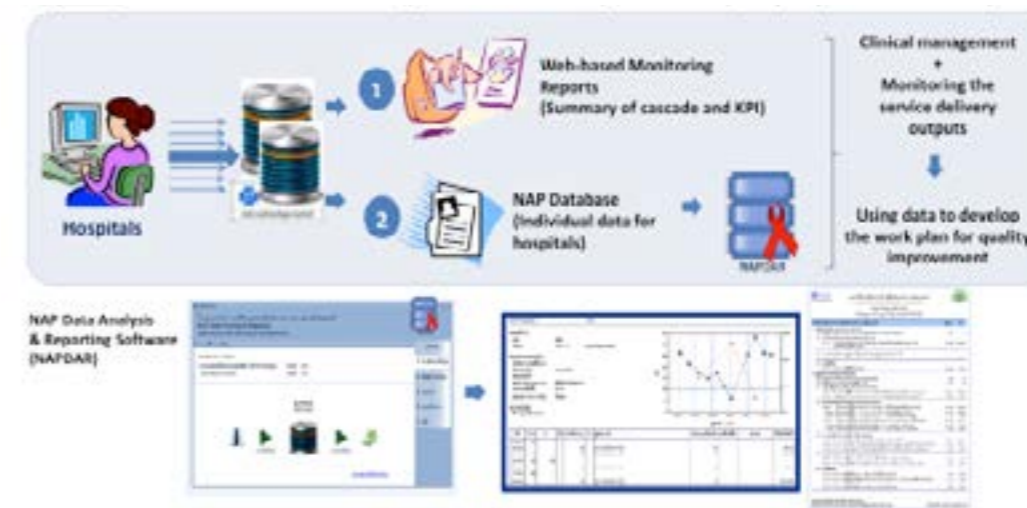


Figure 17: "NAP-Plus Patient Monitoring" for clinical management and quality improvement in hospitals

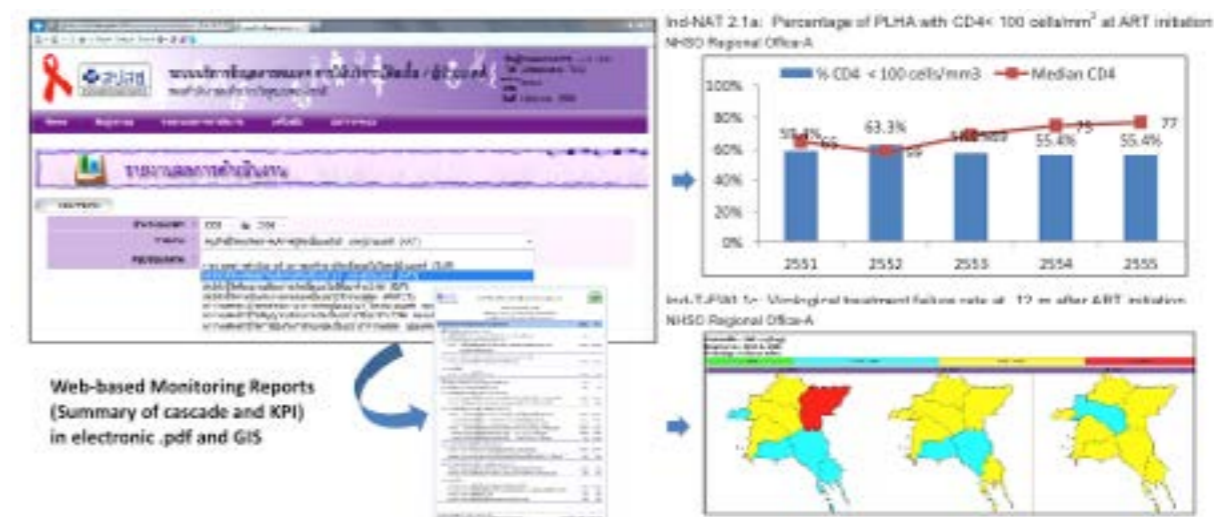


Figure 18: Example of using "NAP-Plus Patient Monitoring" for quality improvement at the national and subnational (regional and provincial) levels

2.5 Challenges

To maximize effective programme monitoring and evaluation, the following challenges have been addressed by the Thailand UHC programme.

Increasing human resources at all levels (national, subnational and facility) with the capability to translate M&E results into the implementation of the intervention activities for service and programme improvement. This includes comprehensive scientific knowledge, public health analysis, policy advocacy communication and coordinating skills.

Minimizing workload and improving quality of NAP-Plus MIS, considering the minimum workload for data management at facilities, user-friendly and standardized tools, built-in informatics error screening and periodic system audits for data quality improvement.

"Research and Development" is needed to evaluate the quality of the available M&E system, as well as identify the additional tools, as needed, to provide essential data for the programme quality improvement.

Committed policy, funding resources, and a technical team with strong collaboration are required to ensure the sustainable and effective M&E system to regularly monitor programme responses and periodically evaluate key intervention scenarios for the policy decision-making required.

Appendix A

Key indicators for monitoring the treatment cascade and the implication of the national strategy at national (N), sub-national (Regional [R] and Provincial [P]) and hospital (H) levels:

AREAS	KEY INDICATORS	DATA SOURCES	FREQUENCY	N	R	P	H
Input resources	• Domestic and international AIDS spending by categories and sources	NHSO (For Thai) GF (For non-Thai)	Annual	x			
	• Number of health facilities for HCT, HIV care and ART, including laboratory facilities	NAP-Plus	Annual	x	x	x	
	• Human resources: PLHIV-to-Provider ratio, by type of health personal	Annual ART facility survey	Annual	x			
Access early HIV diagnosis and early enrolment to care services	• Percentage of general and key affected populations with known HIV test status	BSS and/or IBBS surveillance	Every 1 to 2 years	x			
	• Number of persons newly HIV diagnosed	NAP-Plus	Annual	x	x	x	x
	• Percentage of PLHIV with early diagnosis		Annual	x	x	x	x
	• Percentage of newly HIV diagnosed persons enrolled in care within three months of diagnosis	NAP-Plus	Annual	x	x	x	x
Retention in care of PLHIV not yet initiating ART	• Percentage of pre-ART PLHIV retained to care at the end of reporting year • Lost FU rate among pre-ART-PLHIV • Percentage of pre-ART received CD4 test during the past 12 months	NAP-Plus	Annual	x	x	x	x
Early Access to ART (GARPs)	• Coverage of ART among eligible PLHIV (Percentage of eligible adults and children currently receiving ART)	NAP-Plus, GPO and AEM	Annual	x			
	• Percentage of PLHIV with CD4 <200 (and <100) cells/mm ³ at ART initiation	NAP-Plus	Annual	x	x	x	x
ART adherence and retention (GARPs/EWI)	• Percentage of adults and children with HIV known to be on treatment 12, 24, 36 and 60 months after ART initiation • Annual lost FU rate among ART-PLHIV, classified by duration after ART		Annual	x	x	x	x
Effectiveness of ART in achieving viral suppression (EWI)	• Percentage of ART-PLHIV received VL test during the past 12 months • Percentage of ART-PLHIV with VL suppression at 12, 24, 36 and 60 months after ART initiation • Percentage of ART-PLHIV with VL failure (>1,000 copies/ml)	NAP-Plus	Annual	x	x	x	x
ARV stock management	• Percentage of ART facilities with ARV drug stock-outs	ART facility annual survey	Annual	x	x	x	
TB/HIV and co-infection management	• Percentage HIV screening among TB • Percentage of TB screening among HIV • Percentage of estimated HIV-positive incident TB cases that received treatment for both TB and HIV	TB Annual Report (TB Database)	Annual	x	x	x	x
	• Percentage of PLHIV eligible to OI prophylaxis received the prophylaxis medication - <i>Pneumocystis carineii</i> - <i>Cryptococcosis</i>	• HIVQUAL-T • NAP-Plus (in development)	Annual				x
Mortality	• Annual deaths among PLHIV registered to care (number and percentage) - In service – Pre-ART-PLHIV - In service – ART-PLHIV - Lost – FU-PLHIV	NAP-Plus	Annual	x	x	x	x
	• Death rate during the first 12 month after ART initiation	NAP-Plus	Annual	x	x	x	x
	• Death rate among TB/HIV patients during the first 12 months after registration	NAP-Plus	Annual	x	x	x	x

CHAPTER 7

Quality Improvement Support for the Universal Access to ART Programme

¹ GPO: Governmental Pharmaceutical Organization for the estimation of PLHIV in private care settings

Quality Improvement Support for the Universal Access to ART Programme

Ms. Rekawan Rekakanakul
National Health Security Office

Support for quality improvement of HIV care under the Universal Access to ART programme is divided into two parts:



LABORATORY QUALITY IMPROVEMENT

Laboratory quality improvement is necessary for ensuring quality laboratory services, particularly in the production of reliable, accurate results. The NHSO categorizes laboratory services into:

- 1. Basic tests and HIV laboratory**, which perform basic tests such as HIV testing (sometimes referred to as “anti-HIV” testing, a complete blood count (CBC), and blood chemistry. The working area can be separated from other laboratory services or combined in the same area with appropriate infection control measures.
- 2. HIV laboratory**, which performs specific HIV tests for the monitoring of ARV treatment such as CD4, HIV viral load and HIV drug resistance tests.

During the initial phase of the ART programme under universal health coverage, the NHSO provided support for various elements for quality implementation including:

- **Training of multidisciplinary teams:**
Including doctors, nurses, pharmacists, laboratory technicians, and HIV coordinators.
- **Venues for providing ART services for PLHIV:**
Such as rooms for diagnosis, counselling, pharmacies and laboratories.
- **Service provision:**
Treatment, confidentiality, treatment education and diagnostics.
- **Quality assurance**
Composed of the multidisciplinary team, continuous monitoring and capacity building.

In order to receive reimbursement from the NHSO, all laboratories must be certified according to NHSO criteria before registering into the NHSO’s system. The NHSO regional branch, together with the provincial branch, takes responsibility for certifying basic tests and the anti-HIV laboratory. A technical team adopted by the NHSO is responsible for certifying the HIV laboratory.

TO CERTIFY A LABORATORY REGISTERED UNDER THE NHSO, THERE ARE FIVE CRITERIA FOR CONSIDERATION:



The NHSO receives technical support from various agencies and partners to provide quality services in treatment, care and prevention, including:

- Collaboration with the Department of Medical Sciences in External Quality Control of HIV testing, HIV viral load and HIV drug resistance testing.
- Collaboration with the Faculty of Medicine, Siriraj Hospital in External Quality Control CD4 testing.
- Collaboration with the Association of Medical Technology of Thailand to provide training for laboratory technicians in specimen collection, quality assurance, and to establish a laboratory network to ensure sufficient knowledge on HIV laboratories.
- Collaboration with the Medical Technology Council to conduct quality assessment in 97 HIV laboratories providing services for HIV testing, CD4, viral load, and drug resistance testing.
- Collaboration with the Bureau of AIDS, TB and STI, Department of Disease Control and the Thailand-US CDC and AIDS Institute of New York State, USA to develop the programme called HIVQUAL-T to monitor treatment and implementation in HIV clinics.
- Collaboration with the Health Care Accreditation Institute to develop hospital accreditation for each disease.

REFERENCE:

1. Bureau of AIDS, TB and STI. HIV/AIDS Laboratory Diagnosis
2. National Health Security Office: Guideline to Universal Health Coverage Fiscal Year 2013, Book 2, Budget Management for Universal Access to ART and Budget Management for TB Control Programme.
3. Medical Technology Council. Thailand Medical Technology Standards: 2008
4. National Guideline on HIV/AIDS Diagnosis and Treatment Thailand: 2010

CHAPTER 8

The Roles of the Department of Disease Control in the Universal Access to ART Programme

The Roles of the Department of Disease Control in the Universal Access to ART Programme

Dr. Sumet Ongwandee and Ms. Porntip Yuktanon

Bureau of AIDS, TB and STIs, Department of Disease Control, Ministry of Public Health

KEY MESSAGES

The goal of Universal Access to ART is to reduce morbidity and mortality and prevent HIV transmission. This is based on the facts that:

1. HIV is categorized as a chronic disease where patients require life-long treatment while new cases call for comprehensive care and a continuum of care. As a result, the budget allocated for treatment will continue to increase every year.



The development of access for PLHIV to the ART Programme should be implemented in conjunction with the HIV/AIDS prevention policy.



2. The development of access for PLHIV to the ART Programme should be implemented in conjunction with the HIV/AIDS prevention policy, thereby ensuring a supportive environment together with the reduction of risk behaviour of the general population. The approach must consider coverage, equity, effectiveness, equality and the participation of civil society and community, as well as sustainability.

3. The prevention of new cases of HIV must be implemented at the community level to create understanding, and to ensure needs are met for access to HIV testing, referral, treatment and care, health promotion, and Positive Prevention.

4. A comprehensive approach should include Prevention of Mother-To-Child Transmission (PMTCT) and a continuum of care for PLHIV.

DEVELOPING HIV CARE SERVICES FOR PLHIV

Effective HIV services for PLHIV require the strengthening of the primary health care system combined with developing comprehensive services with a continuum of care, including community- and home-based care. The most important measure in HIV care is to promote self-care for asymptomatic PLHIV to delay opportunistic infections and to prepare for receiving treatment in the future. Health education, Positive Prevention, and treatment education for PLHIV and their communities will enable a comprehensive understanding and increase participatory decision-making in self-management and treatment preparedness.

KEY FACTORS AFFECTING COVERAGE OF UNIVERSAL ACCESS TO ART

The Universal Access to ART Programme is a public health service aiming to provide comprehensive, equitable and quality access to essential treatment for PLHIV. Various factors might affect the directions and approach of services:

1 The National AIDS policy integrates social, medical and community aspects and includes the participation of other stakeholders, e.g. PLHIV and their network, NGOs working on HIV, and technical agencies both domestic and international, as explained below. Some of the roles of the policy are to:

- Define National ART guidelines for using a triple-drug regimen.
- Build capacity for service providers on HIV counselling, diagnosis, adverse reactions, drug resistance, referrals, and M&E to ensure an effective ART programme for PLHIV.

- Establish and support collaboration between government agencies, private organizations, NGOs, the PLHIV network and people living with HIV in the development of the programme, policy and related system development.

2

The basic health care services for a quality ART programme are:

2.1. Human resources including doctors, nurses, pharmacists, laboratory technicians, counsellors and data entry personnel. Each profession has different requirements and skills according to their responsibility, e.g. project management, drug regimens, and coordination with NGOs, PLHIV networks, families and communities. Moreover, ongoing capacity building of personnel is vital to maintain quality services with emerging information on treatment and care.

2.2. Basic diagnostics related to the ART Programme for monitoring and evaluation of treatment such as HIV testing, CD4, viral load and drug resistance testing.

2.3. 4.3. Civil society and NGO networks and community coordination that complements policy implementation, direction, access and home visits. One of the key aspects of the ART Programme is to increase PLHIV network participation in service provision, especially on treatment education, home visits, continuum of care and self-help activities to establish relationships among PLHIV and support adapting how to live in the community.

3

Drug sustainability

Procuring low-cost and quality drugs without drug shortages is the key to a successful ART Programme. For Thailand, essential ARV drugs can be produced by a government agency, which is the most important component in the supply chain in drugs management and as a result, service providers can be confident in the continuation of drug supply and that patients are not compromised by drug shortages.

4

Financial sustainability

Continuous and secure funding is a positive factor in long-term planning and programme management for both technical and budget management. The budget utilised in ART Programme is divided into 90 percent expenditure in drugs and diagnostics procurement and 10 percent expenditure in network management at the national level.

5

Collaboration among stakeholders is fundamental for supporting an effective ART Programme:

- Establishing a central agency for coordination and implementation, e.g. producing guidelines for the ART programme, drug protocols, a collaboration strategy among stakeholders, budget planning and developing the goals of service providers will ensure a sustainable scaling-up process.
- Capacity building of personnel by technical agencies

- An agency with managerial capability
- Participation of professional associations, PLHIV networks and HIV patients, and local and international NGOs are important in providing comprehensive services at the central and regional levels.

6

Continuous research and development of ART services on drug regimens and dosage, monitoring adverse reactions, alternative and herbal medicine for PLHIV, monitoring drug resistance and an effective management system.

ROLES OF AGENCIES INVOLVED IN DEVELOPING THE M&E OF THE ART PROGRAMME: THE EXAMPLE OF THAILAND

Collaborative efforts of various agencies are essential to the ART Programme. The agencies involved are:

MoPH

- The Department of Disease Control provides technical development, develops guidelines for the ART Programme, standards and capacity-building activities.
- The Department of Health and other departments including Regional technical agencies provide capacity building and other technical assistance including projects such as PMTCT and ART for mothers and families.
- Hospitals under the MoPH provide ART and related services, e.g. laboratory services

Bureau of Budget

provides budget for implementation.

International agencies

provide technical assistance, sharing of experiences and technical support from the global to national level.

AIDS NGOs

advocate issues to be included in policy and participate in implementation at the national and local levels.

Pharmaceutical companies

of the original brands and pharmaceutical companies of locally made brands.

National Health Security Office and Social Security Office

manage access to the ART Programme.

Laboratories

in universities and tertiary-care hospitals provide CD4, viral load and drug-resistance tests.

Government Pharmaceutical Organization

produces, develops, distributes, and delivers ARV drugs using Vendor-Managed Inventory (VMI).

PLHIV networks

have a similar role to AIDS NGOs and represent PLHIV in advocating issues to be included in policy, implement HIV projects and work closely with hospitals to provide PLHIV care.

CHAPTER 9

Lessons Learned from the Universal Access to ART Programme in the Hospital Setting

Lessons Learned from the Universal Access to ART Programme in the Hospital Setting

Dr. Pacharee Kantipong

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Dr Witaya Petdachai

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The health care service system in Thailand is composed of three clusters:

- (1) Medical Service Cluster
- (2) Public Health Cluster
- (3) Health Service Support Cluster and the Office of Permanent Secretary (Figure 19).

Under each cluster, there are departments and divisions functioning underneath them. At the provincial level, the MoPH designates the Provincial Public Health Office (PPHO) and District Public Health Office (DPHO) as coordinating offices in which most of the MoPH hospitals report to the PPHO while Primary Care Units or Health Promotion Hospitals report to the DPHO.

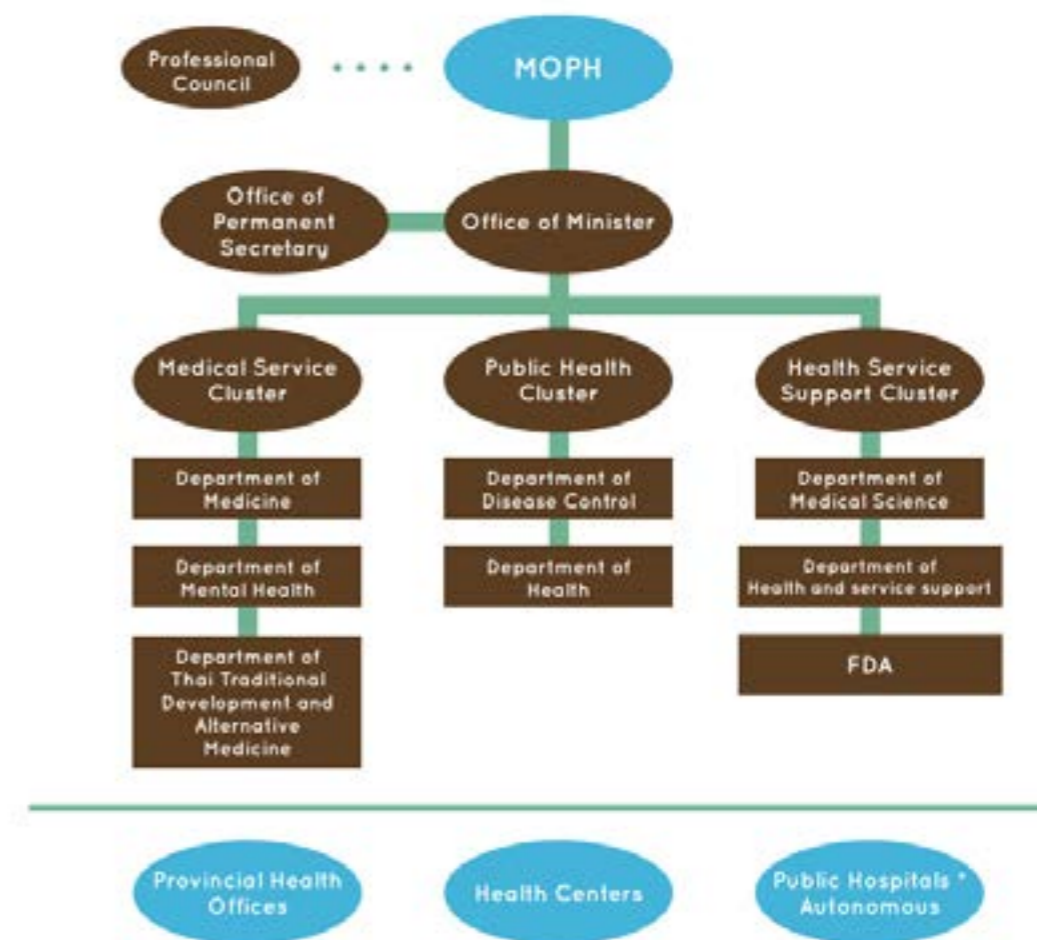


Figure 19: Thailand MoPH Structure

Service providers under the MoPH are categorized into four levels providing services for different levels of illness severity (Figure 20).

1. Health centres or Sub-district Health Promotion Hospitals (12,495 units/hospitals) provide primary care services.
2. Community hospitals (734 hospitals) provide secondary care services for illnesses that require general practitioners.
3. General hospitals (69 hospitals) provide tertiary care services for illnesses that require specialists.
4. Regional hospitals (25 hospitals) provide services to those with illnesses that require specialists in centres of excellence.

HEALTH SERVICE SYSTEM IN THE MOPH

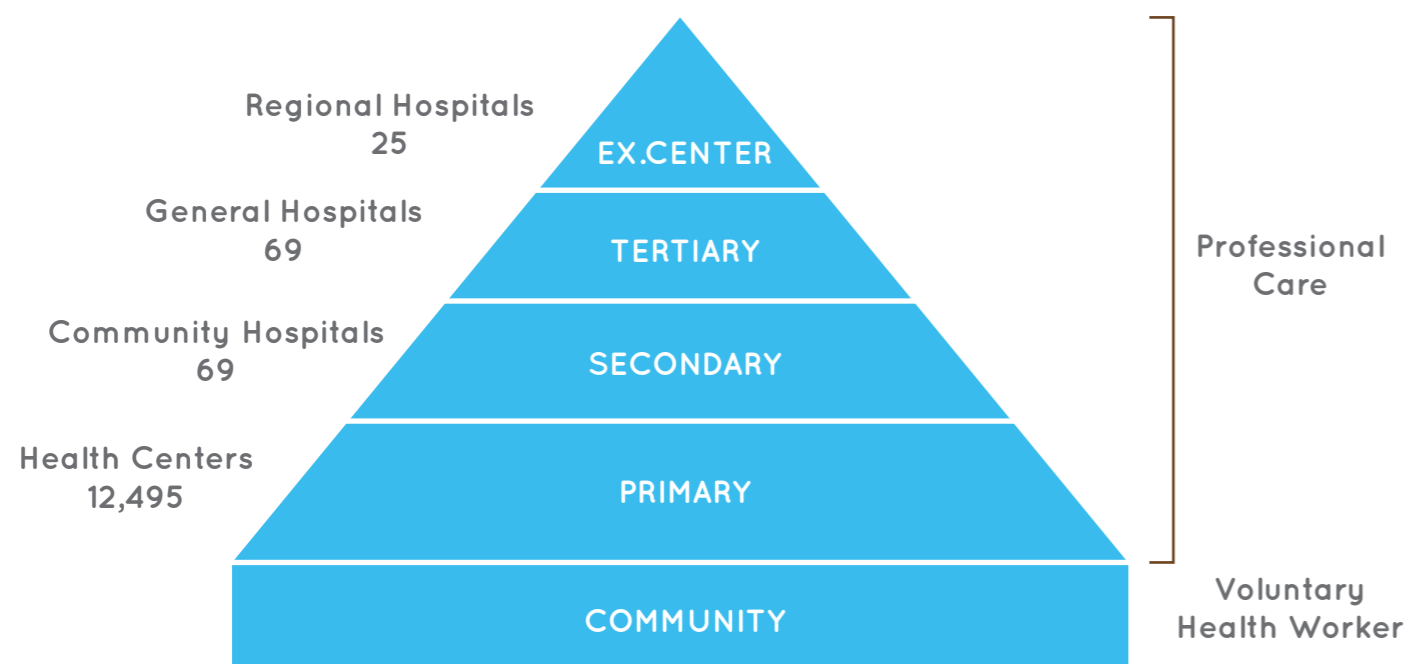


Figure 20: Service providers under the MoPH
Reference: Dr. Chanvit Tharathep, Deputy Permanent Secretary, MOPH, Thailand

In terms of HIV/AIDS treatment and care, general patients can access services at community hospitals. However, paediatric patients and those with complications or drug resistance may require specialists of tertiary care services to provide treatment and care. The lessons presented in this chapter are direct experiences from the practitioners in hospitals. They demonstrate the practical perspectives, capacity building, referral and collaboration between the secondary and tertiary care service providers and the primary care units through the multidisciplinary group, PLHIV network, relatives' network and child carers.

HIV/AIDS TREATMENT AND CARE UNDER UHC IN A REGIONAL HOSPITAL SETTING

"I have been taking ARV drugs for 11 years. Being able to receive ARV treatment using the Gold Card [Universal Health Coverage] is a good opportunity for the poor to access ARV medicine and [the system has] saved many lives. Even for patients who are consistent in taking drugs, if they have to pay by themselves, they are easily discouraged because most of the money they earn would be paying for ARV drugs due to the high cost. That is why patients do not adhere to treatment because they have to stop taking drugs whenever they have no money left, and this will easily cause drug resistance. Now, I have one child, a 21-year old child who is not infected with HIV. I knew my HIV status after my husband passed away and, unfortunately during that time, there were no free ARV drugs available..."

The initial phase of the HIV/AIDS programme under Universal Health Coverage only provided for the treatment of OIs; and patients, such as those infected with cryptococcal meningitis, commonly dominated the ward. The bed occupancy rate for PLHIV was one-third of the medicine ward. After ART was integrated into UHC in 2004, however, PLHIV bed occupancy and mortality rate decreased while the number of outpatients in HIV clinics who were accessing ARV treatment rose. As of August 2013, there were 2,600 PLHIV accessing ART under UHC in the Chiangrai Prachanukroh Hospital with new cases entering the system every month.

At the beginning, ART was available mainly for adults because there were already so many people who needed it and were ready to benefit from the programme. Later on, ART coverage was scaled up to cover children and pregnant women.

The launch of the universal access to ARV treatment programme nationwide was not merely the case of handing over ARV drugs to service providers to manage it by themselves. The key question was of responsibility. Teamwork was a critical element which required capacity building of the whole team of doctors, nurses, counsellors, pharmacists and laboratory technicians so that patients would receive appropriate care. Teamwork allowed clearer structure, work delegation and continuous monitoring of treatment. Capacity building of the multidisciplinary team was, therefore, the most vital piece in the jigsaw for policy implementation.

By establishing a strong team, community members are facilitated to access comprehensive care.

This is important, especially for those accessing services in large hospitals with many departments. Clear instructions can be provided to PLHIV on which department they should visit, e.g. those coming for OI treatment, and to those who want to do HIV testing, pre-operation HIV testing, or blood donation. They will also know how to access HIV care if they are found to be HIV positive. One example of a successful collaboration is the establishment of the CAT (Collaboration of AIDS and TB) team. Patients receiving TB drugs from any department will be registered on the TB registry and provided with HIV counselling and testing, allowing those with HIV to have early to access ART. With data from Chiangrai province, this was found to reduce the mortality rate of TB/HIV patients from 54 percent in 2000 to 24 percent in 2010.

SYSTEMATIC CHANGES AFTER THE LAUNCH OF THE UNIVERSAL ACCESS TO ART PROGRAMME

HIV COORDINATOR

HIV coordinator is a new position designated after the programme was implemented in which most of the assigned coordinators are existing hospital nurses. A designated HIV Coordinator position plays a positive role in the continuity of the programme, especially in community hospitals with a high turnover rate of doctors (every two years). The HIV Coordinator is the position with the overall understanding of the programme in patient care, registration, coordination with network hospitals, coordination with the NHSO, requesting expert advice and even helping to advise newly appointed doctors on HIV care.

PLHIV NETWORK

PLHIV networks have undergone continuous capacity building since the beginning. Now PLHIV networks are part of the multidisciplinary team of the hospitals for the daily implementation of the programme. The roles of the PLHIV network are to assist counsellors in pre-treatment education, do home visits and follow-up visits, count remaining tablets, give advice to peers on drug-taking and drug adverse reactions, and provide a supportive environment for drug adherence (see Chapter 10).

REGIONAL HIV EXPERT

The NHSO designates and appoints a regional HIV expert as an advisor for general practitioners providing treatment in the hospitals, especially on changing drug regimens due to adverse reactions or drug resistance, or on complicated OI treatment.

TREATMENT PROTOCOL

The Universal Access to ART Programme brings clearer treatment protocols for ART initiation, recommended drug regimens and changes of drug regimens in specific cases. The standard operating procedures in the Management Guidelines, which the multidisciplinary team can easily use, provide simple instructions on when, where and how to send patients for CD4, HIV viral load, and genotypic resistance tests. General practitioners who are trained and provided with the guidelines can provide ARV treatment. As a result, any hospitals without HIV specialists can also provide ART to patients.

ARV DRUG PROCUREMENT SYSTEM

The hospital drug procurement uses the VMI system which allows the hospital to access ARV drugs without any stock-outs. In the future, the hospital system will change to procure drugs according to the records in the NAP registry only.

LABORATORY

Laboratory tests required for HIV clinics are CD4 count, HIV viral load and genotype drug resistance tests. Laboratory capacity has been rigorously strengthened and identified in order to establish the laboratory network for hospitals to send laboratory requests. Laboratory protocols were developed detailing where to send samples, how to collect samples correctly, and how to transport samples and by which channels. These protocols require detailed planning to obtain accurate test results for treatment. Other laboratory procedures for treatment and side-effects monitoring, including other related diseases, e.g. HBV and HCV, should also be included in the protocol with clarification on the cost reimbursement for those tests. Currently, the UHC benefit package provides HIV testing for the general population, not only for key affected populations.

NAP REGISTRATION

Entering data into the NAP system is still problematic for all hospitals, as nurses who also take the HIV coordinator role must spend their spare time to get this task done. Some hospitals with a large number of patients have to employ a data entry person for this particular task. Apart from that, the internet network in the hospital must also be sufficiently available to support the system. A common early issue encountered by hospitals was one-way communication with the NAP system. In the past, the hospital could only key in data to request for ARV drugs but could not recall data for analysis. This meant that the staff had to re-enter the data onto another system if the hospital required data for analysis. Currently, NAP has been revised for site users to access their own data for quality improvement. It is a lesson learned for any country aiming to develop Universal Access to ART to consider designing an efficient information system that allows users from both sides to access available data while eliminating repetitive data entry processes.

MOTHER-TO-CHILD TRANSMISSION

Universal Access to ART has expanded to provide HCT for pregnant women during antenatal care. Pregnant women living with HIV are provided with ART to prevent HIV transmission during pregnancy, labour and delivery, and postpartum. Children born from mothers with HIV will be provided with paediatric ART, baby's formula milk and will be monitored according to the guidelines. ART for pregnant women has been developed and revised regularly according to the recommendations. Clear ART guidelines have led to an increase of coverage because pregnant women can access ART services without having to travel to regional hospitals, hence reducing the issue of a barrier of distance. With this programme implementation, data from the Chiangrai Prachanukroh Regional Hospital showed that Mother-To-Child Transmission was reduced from a 40% infection rate without any intervention to 25% by substituting breast milk with baby's formula, to 8% with AZT monotherapy, and to 0% by providing every pregnant woman attending antenatal care with HAART.

The success of Universal Access to ART for PLHIV is a result of careful planning and collaboration among various partners which include the NHSO providing drugs and laboratory services; the Bureau of AIDS, TB and STI developing the system of existing services and other technical assistance, e.g. developing behaviour change communication materials on adherence, documents on treatment literacy and condom use promotion; the Thailand MoPH-US CDC Collaboration (TUC) assisting with the M&E system by developing HIVQUAL-T for programme monitoring and developing NAP Plus to access Early Warning Indicators (EWIs) for service provider quality improvement; the Thai AIDS Society monitoring new research, developing ART

guidelines and continuously advocating the NHSO to revise the National ART Guidelines according to new recommendations, e.g. changing CD4 criteria for treatment initiation from CD4 < 200 cells/mm³ to CD4 < 350 and moving on to CD4 < 500 cells/mm³ and finally to irrespective of CD4 counts etc.

Lastly, one of the most important aspects in implementing Universal Access to ART is the issue of adherence. The country should review lessons learned and issues related to adherence to develop tools for improving and ensuring adherence and a clinic-based adherence monitoring tool to ensure a sustainable programme and reduce primary resistance transmission among key populations.

KEY SUCCESS FACTORS

Multidisciplinary team

Clear treatment guideline

Laboratory network establishment

Designation of HIV coordinator position

Appointment of regional HIV experts

Collaboration among various agencies



Pregnant women living with HIV are provided with ART to prevent HIV transmission during pregnancy, labour and delivery, and postpartum.



UNIVERSAL ACCESS TO ART FOR CHILDREN LIVING WITH HIV IN THE GENERAL HOSPITAL SETTING

"Dear, a 14-year old girl, lost her father from lung disease and was living alone with her mother. When she was 7 years old, she had pneumonia and was sick ever since. She was referred by the District Hospital to receive treatment in the paediatric ward in Phrachomklao Hospital, Phetchaburi province. She was very thin and got sick three to four times a year. The doctor diagnosed her with TB and she later received both TB and ARV drugs at the same time. She visited the hospital according to her appointments and took drugs regularly until she was better. Later, she was informed of her HIV status by her mother and was treated at the provincial hospital for 10 consecutive years. She was referred back to the district hospital to continue treatment when the hospital had the capacity to provide ARV treatment for children and youths."

PREAMBLE

In 2002, Phrachomklao Hospital, Phetchaburi province collaborated with MSF-Belgium to initiate the ART for children project. Until 2005 ART was provided by the NAPHA project (GFATM). Later, the NHSO initiated the nationwide Universal Access to ART programme and the hospital has been receiving ARV drugs from the NHSO since 2007. The hospital then developed and revised paediatric ART guidelines and services.

Initially, the team at the hospital was not acquainted with HIV and AIDS, thus it was necessary for the programme to begin with capacity building as well as activities to increase knowledge and understanding about HIV to reduce stigma and discriminatory perceptions towards PLHIV. Children living with HIV were encouraged to access services provided in the hospital. A PLHIV group was established and invited to participate as part of the multidisciplinary treatment team by providing treatment education, PLHIV care, home visits, and monitoring children's treatment adherence. There was the initial agreement among hospitals in the province that all children must initiate ART by paediatricians at Phrachomklao Hospital.

The hospital developed a child- and youth-friendly clinic, separated from the outpatients, and focused on preparing both children and carers for ARV by providing treatment literacy and ensuring treatment adherence education, OI screening and laboratory services before the provision of the first-line regimen according to the National ART Guidelines. After the initiation of ART, there was monitoring for adverse drug reactions in the short-term and monitoring metabolic change, treatment failure and drug resistance in the long-term.

HIV holistic care in Phrachomklao Hospital provides psychosocial, economic and educational support in addition to ART, such as a Saturday clinic; youth activities; youth camps; promotion of adherence, disclosure, safe sex and peer support; a special classroom; home visits, income-generating activities and team meetings.

SYSTEMATIC CHANGES AFTER THE LAUNCH OF THE UNIVERSAL ACCESS TO ART PROGRAMME

DATA SYSTEM

The NHSO installed a server to store the national AIDS database using the National AIDS Programme (NAP), in which the team must key-in online data of the children using NAP identification numbers. Each staff has a different level of authorization to access patient data.

At the beginning, the hospital encountered challenges with internet connections to connect to the server since most of the hospital lacked sufficient IT infrastructure. Therefore, the NHSO decided to fund computers and IT accessories to connect to NAP (see Chapter 4).

Another key challenge in the application of the data system is staff workload. Data entry requires time allocation additional to the existing high workload of staff, and delays in data entry caused a backlog of data and errors. The issue was solved by designating a data entry person who received training on data management.

The benefits of the NAP system are quality improvement, surveillance for drug resistance, and the ability to identify benefits for patients under different health insurance schemes (SSS and CSMBBS). With the centralized data system, doctors are able to monitor if laboratory tests for patients adhere to the guidelines and check if patients have changed their drug regimen in cases of treatment failure by coordinating with the appointed HIV expert via NAP.

Additionally, NAP supports Early Warning Indicators (EWI) analysis by identifying the possibility of potential drug resistance in each hospital and at the provincial level for necessary intervention. This information helps incentivize hospitals to key in timely, accurate data for use in future analysis and early intervention.

HUMAN RESOURCES

Workforce

The multidisciplinary team in the hospital is composed of a paediatrician, a nurse, a pharmacist, a social service officer, a laboratory technician and two PLHIV volunteers with the paediatrician as the team leader. Staff in the multidisciplinary team serve on a voluntary basis and have responsibilities in the hospitals in addition to responsibilities in the HIV clinic.

The PLHIV volunteer group was selected among patients to work in the team. This empowering them through changing their roles from that of service recipient to that of service provider, assisting in both adult and paediatric clinics. Initially, the volunteers received no incentives but later on the NHSO provided travel costs for volunteers providing home visits.

Every district has a PLHIV volunteer network with at least two to three PLHIV team leaders who coordinate and attend regular provincial HIV meetings. Children, after becoming adolescents, jointly established peer-to-peer groups to provide home-based care, act as support for ARV adherence and share experiences with younger peers.

Human Resource and Human Resource Development

The HIV Coordinator at the provincial level is a position in the Provincial Public Health Office who coordinates according to the "Getting to Zero by 2015" policy by organizing regular meetings among provincial and district multidisciplinary teams and PLHIV networks for regular capacity building, problem solving and presenting case studies. Other roles are coordinating paediatric HIV care quality improvement and inviting various experts from provincial hospitals and universities to provide regular technical assistance.



The PLHIV volunteer group was selected among patients to work in the team. This empowers them through changing their roles from that of a service recipient to that of a service provider assisting in both adult and paediatric clinics.



CHALLENGES

1. A high workload with limited staff is a common scenario in all hospitals. Despite these shortcomings, every hospital can function without in-house specialists and utilizes the existing sources of volunteers and peer-to-peer groups to reduce the challenges of a sufficient workforce.

2. Every district hospital experiences frequent turnover of doctors. New doctors are appointed in district hospitals every two years and then they are permitted to leave for further studies. Therefore, in most cases, nurses are the actual team leaders while doctors act as advisors in the complicated cases.

3. Patients need to be persistently encouraged to live their lives, and more efforts should be made to reduce stigma and discrimination among children and youths.

4. Volunteers in the multidisciplinary team receive only travel incentives when conducting home visits with no salary. Once they are healthier, they no longer volunteer on a full-time basis and leave to find work to support themselves and their families.

PROVINCIAL HIV COMMITTEE

Network establishment

Paediatric HIV care is usually limited in the provincial hospital setting to in-house paediatricians. The expansion of coverage of paediatric HIV care requires the establishment of an HIV care network. District hospitals refer patients to the provincial hospital to initiate treatment by a paediatrician. Patients are treated until symptoms, laboratory results and psychosocial status improve, drug adherence is no longer problematic and HIV status is disclosed, and thus patients are referred back to the district hospitals. This approach creates a paediatric HIV care network at the district level.

In addition, the HIV network includes (1) academics and NGOs to organize annual children and youth camps; (2) universities, education and school networks to help solve education issues and provide scholarships for children; (3) the hospital foundation to provide travel costs and the sub-district Administrative Organization to provide monthly living support.

Every district has its own PLHIV network and PLHIV club in which the volunteers are community members who initiate their own health plans, and participate in HIV management, prevention and treatment with the multidisciplinary hospital team. This empowers the community and creates leverage. The network also takes a holistic view of health issues, not limited only to HIV, but as a means to a way of life without discrimination. This indicates well-being in the community and the hope to eventually reduce HIV in the community.

Network coordination

Paediatric HIV care network has been established at the district hospitals, with the benefit of improving access to children, less traveling time and less other costs related to treatment. The district hospital paediatric HIV Care network was originated through meetings with key stakeholders, i.e. children, carers and district hospital multidisciplinary teams that will receive paediatric HIV Care training at the provincial hospital. Children's data is forwarded to the district hospital to prepare the drug regimen and care for children. A transfer appointment is made and the whole provincial multidisciplinary team will be present at the district hospital for a cohort transfer. The relationship between the provincial hospital and the children will continue by establishing appointments with children and carers and invitation to annual activities. The provincial multidisciplinary team conducts biannual monitoring visits at the district hospitals. A regional monitoring team is established to provide monitoring visits to provincial and district hospitals for guideline adherence, quality improvement, and data quality assurance.

Roles of hospital

Phrachomklao Hospital in Phetchaburi province has been established as a Centre of Excellence of the Central Region to help initiate the paediatric HIV Care network in district hospitals. The NHSO supports study visits for other hospitals to learn from Phrachomklao Hospital and bring back a "copy and paste model" to implement a three-year scale-up of nationwide paediatric HIV Care coverage under a limited resource setting like Thailand.

An additional benefit of this project is a sense of camaraderie among health care workers in the field and an informal technical assistance and discussion network has been created among visiting hospitals. They, in turn, become provincial leaders in paediatric HIV Care by using Paediatric HIVQUAL-T as a monitoring tool for quality improvement at both hospital and provincial levels.

“Patients are treated until symptoms, laboratory results and psychosocial status improve, drug adherence is no longer problematic and HIV status is disclosed, thus patients are referred back to the district hospitals.”

TREATMENT OUTCOMES

Mother-To-Child-Transmission

The HIV transmission rate from mother to child was reduced noticeably after the initiation of antenatal prophylaxis. The infection rate when children were breastfed and received no ARV was 40% and reduced to 25% without breastfeeding. In 1996, the Thai Red Cross Reduction of Mother-To-Child Transmission Project used AZT monotherapy to reduce the infection rate to 8%. The provision of single-dose NVP to mothers and children reduced infection rate to 2% and finally in 2011, the NHSO provided a triple-drug therapy, early infant HIV screening and free baby's formula for 18 months, which reduced the infection rate to 0%, thus considerably reducing number of new HIV-positive infants.

Death rate

Initially in 2002, the hospitalization rate for children with OIs was 32% and the death rate was 12%. This has decreased annually. Presently, no children die or are hospitalized.

CASE STUDIES

Case study 1

Gai, a 20-year old teenager, was referred from Cha-am district hospital to initiate ART when he was 11 years old. He lost both parents and was living with his aunt. He was discriminated against and harassed for being HIV positive, contracting it from his mother. The psychosocial impact affected his drug adherence and as a result, he stopped taking ARV drugs.

Later on, a kind uncle who was a neighbour brought him back to the hospital to reinitiate treatment and take the medicine more regularly. Meanwhile, he was still bullied at school and therefore decided to be ordained as a novice at the same time that his uncle entered the monkhood.

Afterwards, his uncle moved to another province but Gai did not want to follow. He decided to disrobe and looked for a job. He worked at a gas station, delivered ice and was a peddler in local markets. He then joined the youth volunteer project called Dance4Life. He volunteered in a peer-to-peer group to provide safe sex education, and assisted in the paediatric ward and youth camp in implementing youth activities. Currently, he is in high school in lifelong learning education and dreams of being an actor. He intends to be consistent with taking ARV and to share his experiences with his friends and younger peers.

Case study 2

Lom, a 20-year-old PLHIV, lost his father; his mother disappeared and he was living with his grandmother. He was bullied at school and harassed. He did not get along with friends, had a bad temper, was shunned by teachers, and frequently visited the district hospital due to his illnesses. He was referred to initiate ARV drugs at the provincial hospital when he was 12 years old. He took the medication regularly and became healthier. He also started a new class at the special classroom in the paediatric ward until he completed primary school and continued with lifelong learning education. He started to earn his living by clamming in a mangrove beach. He was later informed of his HIV status by his grandmother. Currently, he is a kind and happy person and receives ARV drugs at the district hospital.

REFERENCES

1. Center for the Development of Services for HIV/AIDS in Thailand. National Guidelines on HIV/AIDS Diagnosis and Treatment: Thailand 2010. Bangkok: Agricultural Cooperatives Press; 2010.
2. Kumphitak A, Kasi-Sedapan S, Wilson D, Ford N, Adpoon P, Kaetkaew, et al. Involvement of people living with HIV/AIDS in treatment preparedness in Thailand: Case study. Geneva: WHO; 2004.
3. Paterson DL, Swindells S, Mohr J, Brester M, Vergis EN, Squier C, et al. Adherence to protease inhibitor therapy and outcomes in patients with HIV infection. *Ann Intern Med* 2000;133:21-30.
4. REPSSI. Psychosocial care and support for young children and infants in the time of HIV and AIDS: A resource for programming. Psychosocial Wellbeing Series; 2007. [Cited 12 Feb 2011]. Available from: <http://www.repssi.org>
5. Country-wide scaling up of Quality Improvement in HIV Care and Treatment: Bureau of AIDS, TB and STI, Department of Disease Control, Ministry of Public Health. [Cited 15 Aug 2013]. Available from: <http://www.cqihiv.com>
6. World Health Organization. HIV DRUG RESISTANCE EARLY WARNING INDICATORS: World Health Organization indicators to monitor HIV drug resistance prevention at antiretroviral treatment sites, June 2010 Update. Geneva: WHO. 2010.

CHAPTER 10

Strategy for a Comprehensive Continuum of Care: Perspectives from People living with HIV in Thailand

Strategy for a Comprehensive Continuum of Care: Perspectives from People living with HIV in Thailand

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What changed the situation was antiretroviral drugs. Over time, more and more people had access to ARVs.



It wasn't many years ago in Thailand that getting infected with HIV was comparable to a death sentence. In fact, there was a saying that "the only option for people with AIDS is death". It was common for our friends, families, neighbours and colleagues to become sick, to waste away before our eyes, and eventually to die. Almost every one knew someone who had AIDS. In any village, there were usually three or four funerals a week of people who died from AIDS.

At that time, the reported cause of death was not AIDS, but something else – cancer, heart disease, immune-related illness – AIDS was a forbidden word. It happened everywhere. It saw it many times. When I joined my organization, which provided treatment for people with AIDS, my only hope was to find a place to die among people who were in a similar situation. I did not join to get well. I did not dare to hope. Getting well and recovering from AIDS was unheard of and seemed impossible. It was beyond my wildest dreams at that time. Little did I know this would drastically change after a few years.

What changed the situation was antiretroviral drugs (ARV). Affordable ARV drugs, particularly the generic fixed-dose combination drug manufactured by the Governmental Pharmaceutical Organization (GPO) and generic drugs imported from other countries, were gradually made available to a number of us. Over time, thanks to numerous dedicated doctors, nurses, health care officers, community health care volunteers, and AIDS activists, more and more people also had access to ARV.

For people who have lived without hope for a long time, ARV drugs as well as other drugs for treating opportunistic infections are not just medicines to treat the illness, they are much more than that. ARV drugs allow us to have a healthy, productive, and meaningful life, to increase our self-esteem, empower us and restore our dignity, and galvanize us to work together and strive for a better and healthy community and society. ARV improves our physical, social, and political well-being. Hence it is essential for us people living with HIV to utilize ARV strategically. Notwithstanding the broad

benefits of ARV, for people living with HIV, well-being is not limited to the physical but includes psychological and socio-economic well-being as well. For us, well-being is, as for the rest of society, holistic, encompassing, and multidimensional. It also specifically involves respect, dignity and equal opportunity for all. Therefore, our strategies cannot be ARV-specific; ARV is one of key components among other equally important components. For most of us, ARV is one of the means to a meaningful, dignified and fulfilled life

The strategies described below were not developed or conceptualized from one or two workshops. The strategies evolved over the years, through a process of trial and error. The process was gradual, intermittent, reflective of and in reaction to the ever-changing contextual factors such as funding, available resources, emerging events, donor and governmental policies, and societal attitudes (about HIV and AIDS and people living with HIV).

Likewise, the focus of the strategies or the priorities sometimes shifted, waxed and waned, corresponding to events or different contexts. Retrospectively, some of the strategies started off as an idea or a concept, or an event or activity, and vice versa. They then evolved and matured. Some of them were initiated by people living with HIV/AIDS; some were initiated by our partners and allies. They are intertwined and related to each other in such a way that they should be considered together, not separately. The strategies are not ranked by order or consequential; the first one on the list does not mean it has higher priority than the ones that follow or has to occur first.

The strategies are:

BECOME VISIBLE AND GETTING INVOLVED

Many HIV-positive people were, and still are, reluctant to disclose their HIV status due to stigma and discrimination. This only makes the problems worse. A person is inevitably turned into a mere statistic – a faceless victim among numerous faceless victims. Disclosing our HIV status, speaking out, and become involved make us human with rights and dignity. It attaches humanity to the problem. It convinces other people that HIV positive people are not that different from them. It demonstrates to others that we all are individuals with specific needs and problems and ways to cope with our

problems. It also shows others that being HIV positive does not degrade us or devalue us as human beings. Furthermore, disclosing our HIV status prompts us to become involved in self-help groups, in addressing HIV-related issues and other health issues in our community, which in turn demonstrates to others that getting infected doesn't render us powerless, unproductive, or less human. Getting involved ensures that our needs and problems will not be ignored, overlooked, or underestimated. In this way, and together with other HIV positive people in our community and other communities near and far, it makes access to ARV and other treatment become reality. A known number of people living with HIV makes very convincing evidence and motivation for policymakers and the public. This does not mean that the struggle was easy or always smooth. But the outcomes make it worthwhile.

- To make ourselves more visible and our voice clearer and stronger, we had to organize ourselves into self-help groups or support groups at every level - community and village, sub-district and district, province and region, and nationwide. We also created connections with our fellows from other countries in the Southeast Asia region and other regions around the world. Networking not only made us stronger, it enabled us to share experiences, tools, and lessons learned which made our work better. Networking also inspired us to do better, and to do more. Networking at various levels increased access to affordable ARV and enabled the Thai government to expand the coverage of ARV services by utilizing generic ARV drugs manufactured in the country and from abroad.

- Become visible and strong made people living with HIV a powerful constituency. Representatives of people living with HIV are members of the National HIV/AIDS Committee, the National Technical Sub-committee on HIV/AIDS Vaccine Development, and the Steering Committee for the National Program to Improve ARV Treatment Program, and many more. Such representation ensures that our needs for ARV and quality treatment are not overlooked and are addressed promptly.

INSTITUTIONALIZING THE ARV PROGRAMME

Instead of trying to increase access to ARV treatment randomly, a better way to ensure broad and sustained access to ARV is to

institutionalize the programme. We, together with our allies, NGOs, and consumer groups, advocated with the Thai government for a national health care programme, which provides affordable quality health care and services to all Thais. As a result, the current National Health Insurance Programme provides free ARV therapy for all Thais. HIV positive people now can go to the local government hospitals to get a supply of ARV drugs at no cost. In addition we are also working with NGO partners to expand this programme to cover foreign migrant workers who become infected with HIV. Ongoing advocacy has improved HIV-related services for migrant workers significantly in the past few years.

PARTNERSHIP AND STRENGTHENING EXISTING INFRASTRUCTURE

The national ARV programme alone may not translate to equal access to effective ARV treatment at the community level. Major barriers were the heavy workload and lack of trained professionals at the community level. We were aware that health officers at the community hospital had many responsibilities and they also had to work with limited resources and support compared to health care services in urban areas. This is still true today.

Therefore, in order to scale up access to ARV at the community level where many HIV positive people lived and were in need of better treatment, we worked hand in hand with the local health care officers in the ARV programme. We established, with the support from the hospitals and NGO partners, holistic health care centres in the rural areas. The centres, located inside local hospitals, provide peer counselling, HIV education, HIV home-based care and follow up, and HIV and ARV trainings for HIV positive people and their families.

The curricula were developed by NGOs specialized in care and treatment for people with HIV/AIDS. The curricula are not to replace or substitute but to supplement governmental training. The trainings are to ensure that people understand and adhere to treatment, which increases the effectiveness of ARV treatment and makes it cost-effective.

The holistic health care centres are staffed by local people who speak the local language or dialect, know the community and customs. This makes the centres user-friendly and approachable, and in many cases, a better

option than the official setting common to other services of the hospitals. Furthermore, discussing sensitive topics with people who share the same problems, and have direct experience can reduce anxiety and put people at ease. Speaking from direct experience is also more convincing and powerful than lecturing or suggestion from others who do not live in the same situation or share the same problems.

In relation to ARV treatment, the holistic centres perform basic but fundamental services that includes monitoring, follow-up and strengthening adherence to ARV and other treatment. This frees up government health care officers to deliver essential services to others. It takes time for the centres to gain trust and confidence from the health officers and community members. But it is possible and worth the effort.

The partnership is not limited to governmental organizations only. NGOs working on HIV programmes were one of our main partners from the beginning. The relationship started from coaching (by NGOs) and gradually has transformed to the equal partnership of today. We work closely with NGO partners on national level advocacy for access to affordable ARV, expanding ARV treatment to cover migrant workers, providing input for Free Trade Agreement negotiations to ensure that access to affordable ARV drugs will not be compromised, and other advocacy related to better treatment.

FIGHTING STIGMA

More than two decades has passed since HIV emerged as a major health and social problem in Thailand and despite concerted efforts by governmental organizations, NGOs, and donor agencies, HIV stigma still persists. The manifestations of HIV-related stigma have changed but the essence and its effects are still the same.

Discrimination becomes subtler but it still creates problems for people living with HIV and their families as before. HIV-related stigma and discrimination prevent people from seeking information about HIV, prevents them from getting tested for HIV, and prevents them from seeking proper health care and treatment if they are HIV infected. If stigma still persists, a number of people with HIV/AIDS who are sick will not be able to get ARV. Hence, it is imperative that increased access

to ARV and the strategic use of ARV go hand in hand with fighting against stigma. Fighting stigma has been one of our main strategies since the beginning. We commit to fight against stigma at the policy level and at the community level.

We have learned from our experience that correct HIV education can effectively fight against stigma. Our members are trained to be peer educators to deliver HIV educational activities in the community. We spoke to students in classrooms, organized HIV workshops for village youths and students, and trained family members about HIV prevention, home-based care and ARV treatment. All of these are to educate the community about HIV and to reduce stigma associated with the disease and HIV-positive people.

LEARNING FROM THE PAST, REPLICATING GOOD PRACTICES

We are aware that today's successes are the results of applying what works and learning from our past mistakes and avoiding repeating them. We are not trying to do new things just for the sake of it or to try to impress and please donors.

We believe that the gateway to effective and efficient health care for people with HIV is voluntary counselling and testing for HIV or VCT. Unfortunately, VCT has gone through boom and bust cycles not unlike business ventures. At one time, VCT was very popular; many organizations offered VCT or VCT trainings. Over the past few years, VCT just simply melted away or has taken a back seat to other "hot" activities. VCT isn't sexy any more.

There are many reasons why VCT isn't popular: one reason is that it is very difficult to measure the effectiveness of VCT; another is that good VCT is ongoing, takes time, and requires good human skill and finesse. These skills are unknown territory for or counter-intuitive for health care personnel who are used to issuing orders or instructions (and expect the patients to follow them without questioning). Another reason why VCT (and HIV prevention campaigns) are not popular or sexy anymore is that it is commonly perceived among Thais that Thailand has successfully fought the HIV problem and that there is no need to worry about it any more.

We are being penalized by our own success story and we are paying for it because new HIV infection rates among certain groups are still high or even rising while funding, especially for HIV prevention, is decreasing. Without good VCT, a number of people living with HIV will fall out of the care and treatment cascade. Without good VCT, ARV cannot be delivered to the people in need them in a timely and efficient manner. Hence, an effective ARV programme has to link to user-friendly VCT services. The Thai Network of People living with HIV/AIDS is now working with the Ministry of Public Health,

NGO partners and a research institute to provide telephone counselling services. People can call the hotline to get advice about HIV and related services. The 24-hour hotline is a first step towards VCT and HIV care and treatment.



The strategies evolved over the years, through a process of trial and error. The process was gradual, intermittent, reflective of and reaction to the ever-changing contextual factors such as funding, available resources, emerging events, donors and governmental policies, and societal attitudes.



The strategies outlined above consist of many activities and events. As already mentioned, they are not conducted independently or consequentially; a few activities can be carried out simultaneously or in several communities throughout the country. We can do this because we rely on members of the network who live and work in many communities and villages around the country. Each group often partners with other organizations and groups in their communities to combine and synthesize our resources for greater effects. Working in our own community is a great way to demonstrate to others in the community that getting infected is not a death sentence and that we are still productive and dedicated to fighting against HIV in our community.

and the more people who will get treated earlier, will result in better treatment outcomes and better prevention. This is not impossible.

With strong leadership, renewed and concerted efforts, and meaningful partnership with all stakeholders, this can be done. If we can achieve this, our attempts to gain more resources to fund and sustain ARV programmes for treatment and for prevention will have a better chance of success. Therefore, it is essential to continue to engage the public about the problem of HIV and in being a part of the solution.

Lastly, despite the progress we have made over the years, one big question or challenge remains. It is how to change the public attitude to be more accepting towards people living with HIV, and to regard HIV infection as a long-term illness that can be treated without creating the wrong perception that HIV is a serious threat to individuals and society. Without stigma, myths and misunderstandings about HIV, more people will feel inclined to get tested. The more people tested,

CHAPTER 11

Impact of the Universal Access to ART Programme on the Thai Public Health System

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The overall structure of a health care system consists of six major components (WHO strategy, 2010): 1) Effective health services, 2) Adequate public health personnel, 3) A robust health information system, 4) Access to essential drugs and medical supplies 5) A sufficient health budget, and 6) Good governance, participation and leadership. Thailand's antiretroviral therapy (ART) programme depends on a strong public health care structure. One of the key success factors that made the Universal Access to ART policy possible in Thailand was the readiness in many aspects of the public health care system, including an ongoing national health security policy. In addition, at that time, Thailand also had a strong economy and a good fiscal and monetary status, collaboration from all sectors and the ability to manufacture ARV drugs for domestic consumption at low costs.

Before the integration of HIV/AIDS treatment and care into the benefit package within the Universal Coverage Scheme (UCS) programme, the Department of Disease Control of the Ministry of Public Health took several measures to prepare for service delivery by harmonizing the ART programme with the existing health system until reaching satisfactory results.

On the other hand, it was observed that premature attempts to launch the Universal Access to ART Programme would have faced many problems – if Thailand had started it from the beginning of the UCS programme in 2002 – due to a lack of

preparation leading to unclear policies, unstable fiscal sustainability, inaccessibility and a lack of quality services.

Looking from the perspective of developing countries that are lacking strong public health care infrastructure that could support a Universal Access to ART policy is useful, especially countries such as those in Africa and Asia relying on external financial support from donor countries and international organizations rather than domestic budgets. In these cases, external funds for the ART programme should be leveraged at the beginning. Financial support from the Global Fund, PEPFAR, or other sources of fund could be maximized for setting up of ART programme service centres, logistics, the recruitment and training of public health service volunteers and health advisers, for example. Otherwise, the implementation of the Universal Access to ART policy may not be as successful as it could be. International financial assistance for developing countries could be leveraged not only to develop the ART programme, but also for developing the public health infrastructure to support the project (Global Health Strategy on HIV/AIDS 2011–2015; WHO, 2011).

In this chapter, we will only discuss the results and the impact of the ART programme under UHC at the national level, both directly and indirectly.



International financial assistance for developing countries could be leveraged not only to develop the ART programme, but also for developing the public health infrastructure to support the project.



the ultimate goal is to create a single HIV/AIDS national information system applicable to different health insurance schemes.



1 HEALTH INFORMATION

The National AIDS Program (NAP) is an online information system that links health service information at the health care unit with the central database of the NHSO (See Chapter 4 for additional information). Initially, the objective was to collect and save all information regarding service reimbursement to the health care service unit. Later on, the system was modified and developed to link with previously developed systems established by the MoPH and with different objectives.

It was meant to build a network of information systems and eliminate duplicate data entries from other service units such as the AIDS-OI Programme of the Office of Epidemics, the Department of Disease Control or the supervisory programme for the prevention of HIV infection from mother to child (Perinatal HIV Intervention Monitoring System or PHIMS) of the Department of Health.

Another objective is to use the information by the NHSO to construct the NAPDAR (NAP Data Analysis and Reporting Software) programme in cooperation with the key counterpart, Thailand MOPH – U.S. CDC Collaboration (TUC) to encourage service units to monitor drug resistance occurrences among groups of patients as well as the other important health indices.

From the example, it can be seen that an integrated information system for patient care and treatment is necessary for the treatment of any chronic disease because it helps minimize the problem of lack of medication or treatment, and eliminate duplicate lab tests.

Integration of information is also useful between different service units or across different health insurance schemes. In June 2012, the Thai government announced the policy on one standardized treatment and care for PLHIV under the three medical benefit schemes: SSS, CSMBS and UCS. In this case, the NAP Programme is a good example of an integrated information system across different medical benefits insurance schemes which helps reducing the budget cost of patient information and the loss of medical treatment history when changing between these schemes. This helps ensure quality health care delivery across the different benefits systems with the ultimate goal to create a single HIV/AIDS national information system applicable to different health insurance schemes.

2 ACCESSIBILITY TO NEEDED MEDICINES AND MEDICAL SUPPLIES

We use the VMI (Vendor Management Inventory) system for inventory management and logistics to increase the efficiency and effectiveness of inventory management and distribution of drugs to ensure a steady supply of medicine and national distribution and to provide patients with continual medical care and services. The management of ARV drugs under the NAPHA programme of the Department of Disease Control is the first such programme using VMI from the Government Pharmaceutical Organization and the system has been continuously operating till today. The experience gained from managing ARV drugs under the VMI system has been instrumental in increasing the efficiency of GPO and it is using VMI to support 16 different items including medicines, vaccines and medical supplies as a service to the NHSO Fund and the SSS Fund.

In 2007, the Department of Disease Control of the Ministry of Public Health announced the enforcement of compulsory licensing (CL) for three different formulas of ARV drugs for the treatment of AIDS: Efavirenz 200 mg, Efavirenz 600 mg and Lopinavir/Ritonavir. The cost of the original drugs treatment was very expensive. The drugs were protected by patents. The government was unable to find low-cost replacement drugs to treat patients. This meant the costs were a heavy burden to the government budget for the care of patients.

After the announcement of the government on compulsory licensing, during 2007-2010 the government was able to reduce its budget by 1,830 million baht. At around the same time, the Thai government used similar concepts, principles and reasoning, and the experience gained from ARV compulsory licensing, to announce to additional groups of compulsory licenses for anti-cancer drugs and anti-platelet for cerebro-vascular treatment drugs, i.e. Letrozole Docetaxel 20/80 and Clopidogrel 75 respectively. The result was a substantial reduction in the government budget.

In addition to this, GPO has increased its production capacity of ARV drugs and also invests heavily in the research and development of new drugs formulas. The result has been savings for patients under medical benefits insurance programmes and enabling patients who have to pay for their drugs to buy cheaper ones.

3 INCREASING THE CAPACITY OF COMMUNITY

Community Day Care Centers were established to encourage PLHIV to help each other to continue their lives and work, as well as to get proper treatment by getting more involved in providing services within the hospital in order to lessen the workload of public health personnel. The government has financially supported this activity.

After the announcement of the Universal Access to ART policy, members of Day Care Centers were able to receive more medical treatment, which contributed to the overall better health of their membership. The role of the Center was thus modified and changed to encourage leadership from the Centers to work more within the community. With the changing attitude of the community towards AIDS, this has allowed PLHIV to go and work in preventing and promoting health care (Tanprasertsuk, 2010).

There were also initiatives to help solve community problems such as juvenile problems, drug addiction, family violence and the issue of medical benefits and rights by working together with housewife groups, community leaders and teenagers. The activities are varied from working together to develop a health plan at the district level to proposing an operating budget from the district-level health care funds.

In conclusion, it can be seen that the growth of Day Care Centers and PLHIV networks can help expand the services of hospitals and help share the increasing tasks of health personnel, in order to expand the number of people receiving medical treatment and also help in addressing other social challenges in addition to AIDS.

4 EFFECTIVENESS OF SERVICE

Monitoring and evaluation on a continuing basis is necessary for a strong ARV treatment service. AIDS is a chronic disease which cannot be completely treated, and drug adherence is necessary as patients have to continue treatment for a lifetime. The control of drug resistance, elimination of side effects, and the prevention of HIV transmission are very important. The process of monitoring, supervising and quality improvement which follows the HIVQUAL-T model attempts to measure the performance of work done and increase the quality of care to people living with HIV and AIDS in the clinic. It consists of three major components: 1) performance measurement, 2) quality improvement, and 3) the improvement of the infrastructure for developing quality. These have been used together for the programme from the very beginning.

At the same time, the main idea for quality improvement of the service unit, which is under the responsibility of the International Society for Quality in Health Care (ISQua - Sor Ror Por), is also using the same methodology as HIVQUAL-T. In the past, several service units have asked for certification level 3 in order to pass ISQua certification by using AIDS as the main disease in the assessment and certification process.

Nowadays, ISQua has used the same idea for the disease-specific certificate (DSC) in order to extend the certification level beyond the hospital accreditation (HA) standard. AIDS has been used as one of the DSC metrics for certification.

In conclusion, all the quality measures that have been used and included in the ART programme from the very beginning can be developed in order to support the total quality of the service unit.



AIDS is a chronic disease which cannot be completely treated, and drug adherence is necessary as patients have to continue treatment for a lifetime.



CHAPTER 12

The Universal Access to ART Programme in Thailand: Challenges

The Universal Access to ART Programme in Thailand: Challenges

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The development of ART services for PLHIV in Thailand has been successful. Key factors contributing to the success included policy commitment, the development of a triple-drugs regimen in a single tablet, the decrease in ARV drug prices and government use licences for some ARV drugs, as well as improvement of treatment services supported by the advanced national health system. It could be observed over the past years that treatment services have continued to develop a continuum of care and treatment with

multidisciplinary groups, including civil society, participating in service provision. Most notably, the development of an effective information system led to the creation of a comprehensive database that has been leveraged for treatment monitoring and evaluation of the programme.

Yet alongside the success of the programme came challenges. Key challenges have been identified as follows:

1 HEALTH WORKFORCE

Over the past two decades since ARV treatment was first initiated, the number of patients receiving ART has continued to rise. This has multiplied the workload for health service providers. However, the workforce in hospitals has remained at the same level. A particular challenge is that there are a limited number of personnel for the delivery of ART services despite the rapid increase of people needing them. It is estimated that the number of people living with HIV will continue to increase through more effective identifying of new infections from HIV testing and HIV testing and counselling services and because of the new National ART Guidelines which propose earlier ART initiation. The strategy to cope with this challenge is to manage the frequency of visits and appointments for ART services among patients who have steadily recovered their health. Moreover, task shifting should be considered to share the workload to a less-specialized workforce, including PLHIV, in the provision of ART services.

2 DRUG RESISTANCE

Drug resistance will become the major challenge in the future. The widespread of drug resistance will drastically impact the health service system, especially in terms of expenditure, because additional screening tests would be required prior to ART initiation and the first-line ARV drugs may need further modification. Several attempts have been made to prevent drug resistance among patients, including promotion of drug adherence and monitoring the potential factors of resistance to delay the incidence. Laboratory tests for drug resistance include CD4, viral load and genetic tests for drug resistance. Currently, there are a number of patients with drug resistance who require second or third-line ARV, all of who should be carefully monitored.

3 COVERAGE FOR NON-THAI CITIZENS

Coverage for non-Thai citizens, particularly migrant populations, has become a new challenge for Thailand in relation to Universal Health Coverage. Existing health care insurance schemes covered only Thai national citizens. There is ART access for migrants, with the laboratory budget covered by the Global Fund. Recently, with an aim to extend Universal Health Coverage to all people living in Thailand, the Thai government initiated a new migrant health policy through a new comprehensive health care package for migrants regardless of their registration status. The package would cost a yearly lump sum payment of 2,200 Thai Baht per adult with an additional 600 Baht per year for physical exams. Challenges remain increasing migrants' access to ART in policy implementation.

4 A MISCONCEPTION

A misconception among executive management and policymakers is that the main solution for the HIV epidemic is HIV treatment, or ARV drugs. This is another key challenge. HIV prevention cannot be ignored and a lack of budget for preventing new HIV infections among key populations could lead to continuing risk behavior and exposure to HIV. Education of key decision-makers is important to accelerate efforts on HIV prevention in the future.



Most notably, the development of an information system led to the creation of a comprehensive database that has been leveraged for treatment monitoring and evaluation of the programme.





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