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Health Financing Reform in Thailand:

Toward Universal Coverage under Fiscal Constraints

Piya Hanvoravongchai

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Health Financing Reform in Thailand: Toward Universal Coverage under Fiscal Constraints

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The World Bank's Universal Health Coverage Studies Series (UNICO)

All people aspire to receive quality, affordable health care. In recent years, this aspiration has spurred calls for universal health coverage (UHC) and has given birth to a global UHC movement. In 2005, this movement led the World Health Assembly to call on governments to "develop their health systems, so that all people have access to services and do not suffer financial hardship paying for them." In December 2012, the movement prompted the United Nations General Assembly to call on governments to "urgently and significantly scale-up efforts to accelerate the transition towards universal access to affordable and quality healthcare services." Today, some 30 middle-income countries are implementing programs that aim to advance the transition to UHC, and many other low- and middle-income countries are considering launching similar programs.

The World Bank supports the efforts of countries to share prosperity by transitioning toward UHC with the objectives of improving health outcomes, reducing the financial risks associated with ill health, and increasing equity. The Bank recognizes that there are many paths toward UHC and does not endorse a particular path or set of organizational or financial arrangements to reach it. Regardless of the path chosen, successful implementation requires that many instruments and institutions be in place. While different paths can be taken to expand coverage, all paths involve implementation challenges. With that in mind, the World Bank launched the Universal Health Coverage Studies Series (UNICO Study Series) to develop knowledge and operational tools designed to help countries tackle these implementation challenges in ways that are fiscally sustainable and that enhance equity and efficiency. The UNICO Studies Series consists of technical papers and country case studies that analyze different issues related to the challenges of UHC policy implementation.

The case studies in the series are based on the use of a standardized protocol to analyze the *nuts and bolts* of programs that have expanded coverage from the bottom up—programs that have started with the poor and vulnerable rather than those initiated in a trickle-down fashion. The protocol consists of nine modules with over 300 questions that are designed to elicit a detailed understanding of how countries are implementing five sets of policies to accomplish the following: (a) manage the benefits package, (b) manage processes to include the poor and vulnerable, (c) nudge efficiency reforms to the provision of care, (d) address new challenges in primary care, and (e) tweak financing mechanisms to align the incentives of different stakeholders in the health sector. To date, the *nuts and bolts* protocol has been used for two purposes: to create a database comparing programs implemented in different countries, and to produce case studies of programs in 24 developing countries and one high-income "comparator," the state of Massachusetts in the United States. The protocol and case studies are being published as part of the UNICO Studies Series, and a comparative analysis will be available in 2013.

We trust that the protocol, case studies, and technical papers will provide UHC implementers with an expanded toolbox, make a contribution to discussions about UHC implementation, and that they will inform the UHC movement as it continues to expand worldwide.

Daniel Cotlear
UNICO Studies Series Task Team Leader
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Abbreviations

CSMBS	Civil Servant Medical Benefit Scheme
CUP	Contracting Unit for Primary Care
DRGs	diagnosis-related groups
ID card	identification card
KPIs	key performance indicators
MOPH	Ministry of Public Health
NHSB	National Health Security Board
NHSO	National Health Security Office
P&P	disease prevention and health promotion
SSS	Social Security Scheme
UCS	Universal Coverage Scheme

Executive Summary

Thailand's model of health financing and its ability to rapidly expand health insurance coverage to its entire population presents an interesting case study. Even though it is still a middle-income country with limited fiscal resources, the country managed to reach universal health insurance coverage through three main public schemes: the Universal Coverage Scheme (UCS), the Social Security Scheme (SSS), and the Civil Servant Medical Benefit Scheme (CSMBS). The UCS, which is the largest and most instrumental scheme in the expansion of coverage to the poor and to those in the informal sector, is the focus of this chapter.

The UCS provides comprehensive benefits packages for its 48 million members,[3] including coverage of inpatient and outpatient care, surgery, and drugs. It relies on funding support from the central government, and is channeled to providers through a system of strategic purchasing in which the purchaser and provider are separate from each other. The UCS employs several mechanisms to help it contain costs while providing care to its beneficiaries. The scheme uses payment mechanisms (capitation and case-based payments with a global budget) that send strong cost-containment incentives to the providers. The UCS also has monopsony power in its negotiation with providers and pharmaceutical companies to lower prices. Supplementary add-on payments for some high-cost treatments and interventions are also provided to improve utilization. A monitoring and evaluation system is also in place. Nevertheless, there have been some political tensions between the National Health Security Office (NHSO), which manages the UCS, and the Ministry of Public Health, which has the roles of regulator and health care provider.

The historical development of a health insurance system toward universal coverage in Thailand can provide useful lessons for other lower- and middle-income countries. Thailand's path toward universal coverage relied on a common approach of starting with the poor and formal sectors. The country also experimented with Voluntary Health Card Schemes, which were found to be unsuccessful as a means of expanding coverage to the uninsured population, especially in the informal sector. The chosen approach toward universal coverage was, therefore, to reform the health financing system and create a new financing scheme for the uninsured population, the UCS, using lessons from previous health insurance schemes.

It may not be feasible or affordable for a country without major health insurance schemes to design a comprehensive universal coverage scheme for the entire population, to be implemented all at once. The Thai experience shows that it is important to ensure, from the beginning, that all emerging schemes share a "game plan" and a similar vision of a harmonized health financing system to achieve universal coverage. Also instrumental in the universal coverage movement is having committed policy champions to drive the movement on both the technical and political fronts.

[3] UCS covered 45 million members when it started in 2002 and expanded to 48 million members in 2011 (NHSO Annual Report 2011).

1. Introduction

Thailand is a middle-income country in Southeast Asia with a population of almost 70 million. It has benefited from the relatively continuous growth of its economy, which shifted the country from being agriculturally oriented to one with industrial and service sectors. The proportion of the population living in poverty has declined significantly and life expectancy and child survival have increased over the past decade.[4]

Thailand has frequently been cited as an example of a middle-income country that managed to provide universal health insurance coverage within a relatively short period of time. It is featured as one of the countries in the book, *Good Health at Low Cost* (Patcharanarumol et al. 2011). Thailand's experience reforming its health care financing and coverage expansion can provide valuable lessons for many other low- and middle-income countries that are exploring options to improve the health coverage of their population.

Universal coverage was achieved in Thailand in 2002, after the newly elected government introduced the "30-Baht for All Diseases Policy" in 2001. This 30-Baht policy extended health insurance coverage by establishing a Universal Coverage Scheme (UCS) to cover about 45 million Thais who were not already covered by the Civil Servant Medical Benefit Scheme (CSMBS) and the Social Security Scheme (SSS),[5] by requiring only a 30-baht (about US$1) copayment per visit. The policy also implemented major reform toward demand-side health care financing and strategic purchasing of health services, with closed-end payment mechanisms. Instead of providing budgetary funding to public sector health care providers based on its size, staff number, and historical performance, the 30-Baht Policy introduced a capitation payment that pays providers based on the number of people under their responsibility (contracting unit).

This paper describes the nuts and bolts of the UCS as a key component of the health financing system in Thailand. It analyzes Thailand's experience in health insurance coverage expansion within limited fiscal constraints through various mechanisms to contain costs. It also explores the two commonly discussed approaches for the universal coverage movement: the expansion model (starting from covering the poor and formal sector to universal coverage) and the comprehensive approach (covering the entire population at the same time).

2. UCS Institutional Architecture and Interaction with the Health Care System

The UCS was initially started as the 30-Baht Policy in 2001, with the initial phase of implementation in six pilot provinces that April (Hughes and Leethongdee 2007). The policy later expanded to cover 15 additional provinces in June, and then to all areas except Bangkok in October. It was officially and institutionally established when the National Health Security Act was promulgated on November 11, 2002. According to the National Health Security Act,[6] "[The] Thai population shall be entitled to a

[4] World Bank, "Thailand Overview." Accessed December 30, 2012, http://www.worldbank.org/en/country/thailand/overview.

[5] Among them, around 14 million were already insured by the two existing public insurance schemes, the Voluntary Health Card Schemes and the Medical Welfare Scheme (a government medical welfare scheme for the poor and special groups). At its launch, UCS merged these two schemes together to be a part of it.

[6] National Health Security Act B.E. 2545 (A.D. 2002), http://www.nhso.go.th/eng/Files/Userfiles/file/Thailand_NHS_Act.pdf.

health service with such standards and efficiency as prescribed in this Act." A new, independent organization, the National Health Security Office (NHSO), was created, which serves as a state (autonomous) agency under the authority of the National Health Security Board (NHSB). According to the law, the board is authorized to prescribe the "[t]ypes and limits of Health service for [UCS] beneficiaries." The Board also appoints the NHSO secretary-general, who is in charge of NHSO operations. Under the law, the NHSO is responsible for the registration of beneficiaries and service providers, and administers the fund and pays the claims according to the regulations set out by the NHSB.

The NHSB has 30 members from various sectors and disciplines to promote inclusiveness and to ensure checks and balances in the governance of the UCS. The Minister of Public Health is the chairperson of the NHSB, and the Permanent Secretary of the Ministry of Public Health (MOPH) is a member. Other important ministries are also represented, including the director of the Bureau of the Budget. There are also representatives from the civic sector, health professional bodies, and local administration organizations, as well as technical experts in health insurance, the medical sciences, public health, and other areas. These board members are appointed by the Government Cabinet, and the NHSO secretary-general is automatically designated the board secretary. In addition, there is a Standards and Quality Control Board, which is another governing board of the UCS responsible for quality control. The NHSO supports the administrative work of the NHSB and the Standards and Quality Control Board.

The NHSO receives a UCS budget from the government based on the number of beneficiaries it covers and the capitation rate per beneficiary. Each year, the NHSO estimates the cost of service provision based on its unit cost studies and the number of beneficiaries it will cover. This cost per beneficiary (the capitation rate) is then submitted for approval by the government cabinet. The total budget based on the capitation rate is then submitted together with NHSO operating costs as part of the government budget to be approved by the parliament. Since its inception in 2002, the parliament has never revised the capitation rate approved by the Cabinet. However, the government could change the capitation figure requested by the NHSB, as happened in 2011, when the approved budget per capita is lower than the proposed capitation rate.

A major difference between the previous financing system and the current system is the introduction of a purchaser and provider split and strategic purchasing. Instead of the previous model of budget allocation from the central MOPH to health care providers based on facility size, staff numbers, and historical performance, the UCS has NHSO as its purchaser, which contracts with the health care providers to provide health services for its beneficiaries. The Ministry of Public Health and its network of hospitals are the main contractors of the NHSO. The contractors can have subcontractors, such as private clinics or health centers, to provide primary care and preventive and promotive health services. There are over 10,000 health centers under the MOPH that joined the contracting networks of MOPH hospitals. For private and other public providers, an individual contracting process is required.

The NHSO regional office has the authority to contract with the non-MOPH providers in their regions. There are certain standards that must be followed to be an eligible contractor, including a requirement of a nominal financial deposit. There are more than 70 other public hospitals that are NHSO contractors. The NHSO also contracts with private hospitals, but the number of private hospital contractors continuously declined—from 71 in 2004 to 44 in 2011 (NHSO 2012, 26). Relatively low

capitation and case-based payments are cited as a reason for private hospital withdrawal from the UCS. A limited beneficiary base to adequately pool health care risks is another alleged reason, since UCS members were enrolled first to MOPH providers. In addition to hospital contracts, the NHSO also contracts directly with private clinics in Bangkok for primary care.

Initially, the UCS charged the nonpoor a 30-baht copayment and exempted former participants in the Medical Welfare Scheme (poor and special groups) from this copayment. However, in 2006, the NHSB, under the then-Minister of Public Health, decided to exempt both groups from copayment. The policy was reverted again in September 2012, and use of the scheme's nickname, the 30-baht scheme, was encouraged when the government from the political group that initially launched the UCS returned to power.

3. Incentive Framework of Transfers under UCS

The NHSO channels the funds to the contracted providers using several active purchasing mechanisms, with capitation and diagnosis-related groups (DRGs) the main payment methods. Payment for outpatient services is allocated based on the number of beneficiaries registered with a provider network (Contracting Unit for Primary Care, CUP). The capitation rate is adjusted by age composition, and the money is channeled directly to the CUP at the beginning of each budget year. For MOPH facilities, the amount transferred may be deducted for specific expenses, such as staff salary, at the central or provincial level depending on prior agreement between the NHSO and MOPH. Payment for inpatient services was allocated using case-based payment (following DRGs) under a global budget ceiling cap. This means the payment rate per DRG relative weight varies according to the total number of total DRG relative weights within each period. Annex 1 provides detailed information on the flow of funds and the payment mechanisms used for various treatment groups.

In addition to outpatient and inpatient payments, which consume most of the UCS budget, the NHSO also employs additional funding mechanisms for disease prevention and health promotion (P&P) activities, emergency services, rehabilitation services, specific high-cost clinical conditions, priority services, and clinical areas that are still considered underdelivered. High-cost cases such as myocardial infarction, stroke, hemophilia, or selected diseases that require specific instruments will be paid using a preassigned fee schedule. Fee schedule payments are also used for priority services to increase access to services such as cataract surgery or kidney stone treatment. The UCS gives special incentive payments to encourage early detection and care of diabetes and hypertension patients. The Antriretroviral Fund and Renal Replacement Therapy Fund are special funds under the UCS that were created to cover medical care for HIV/AIDS patients and renal replacement therapy for end-stage renal disease patients. These funds pay providers based on predefined fee schedules for specialized care. They also provide a capital depreciation replacement budget to support the providers.

The use of different methods for various interventions was designed to introduce different incentives to providers. By paying capitation and DRG-based payments under a global budget, the system incentivizes hospitals and health care providers to be efficient and cost conscious. At the same time, the system tries to avoid negatively affecting quality of care due to the undertreatment of patients as a result of the cost-containment effect of the two payment mechanisms. It does so by introducing additional payments for specific high-cost diseases or procedures. The NHSO also provides additional financial incentives for in-time reporting of utilization data and other desired provider behaviors, such as quality improvement.

In 2011, the total expenditure for UCS was 89,836 million baht (NHSO 2012). About 36 percent of the budget was paid for outpatient services, 42 percent for inpatient services, 10 percent for P&P activities, and 6 percent for capital depreciation replacement. The Antiretroviral Treatment Fund received less than 3 percent, as did renal replacement therapy. The remaining payment channels accounted for less than 1 percent each.

4. Identification and Enrolment of Beneficiaries

Thai nationals who are not already covered by the CSMBS or SSS are eligible for the UCS. UCS enrolment is automatic, but registration is required. People living in Bangkok can register at any district office, and people living outside of Bangkok can register at health centers, public hospitals, or provincial health offices. Initially, the NHSO relied on a national campaign and community leaders to increase the registration of beneficiaries. With the civil registration system, the house registration system, and the national identification number, the UCS works with the SSS and the CSMBS to identify beneficiaries of the CSMBS and the SSS, so that the remaining population are eligible UCS beneficiaries.

Members need to specify their registered providers who will be the main contractors with the NHSO. Members can change their provider up to four times a year by reporting to any UCS contracted health care provider or any Bangkok district office.[7] There is no recertification system, but the information linkage among CSMBS, SSS, and UCS allows the UCS to add or remove beneficiaries if its members switch to the SSS or CSMBS, or vice versa.

During the period when the 30-baht copayment was in place, it was necessary for the system to identify the poor who would be exempted from the copayment. The NHSO simply adopted the beneficiaries of the Medical Welfare Scheme that existed before the UCS as the copayment exemption group. This exemption was not necessary after the abolition of the 30-baht copayment. The current government, under a different political party leadership, reintroduced the 30-baht copayment in September 2012, but only for patients who receive prescriptions and are willing to pay. Exemption of copayment is also available for 21 beneficiary groups including the poor, the elderly, and children under 12 years old. The official reason for the return of the copayment was to reduce unnecessary care. However, some people alleged that the underlying reason was to bring back the 30-Baht slogan to reestablish the linkage between this popular national program and the political party that initiated it.

5. Politics and the Management of UCS Funds

The emergence of the UCS and the accompanying major financial reform in the health system, especially the purchaser-provider split in 2002, meant a major shift in health financing authority to the NHSO. Therefore, tensions between the MOPH and NHSO were occasionally reported. Many MOPH administrators perceived the change as UCS undermining the role of the MOPH as the steward of the system (Treerat and Ngamarunchote 2012). At the very least, financial power and priority-setting powers were shifted to the NHSO. The NHSO was also assigned a regulatory role that overlaps with the MOPH's existing role. The MOPH has no direct policy setting or financing functions regarding UCS health care finance other than through membership in the National Health Security Board of the

[7] Before September 2012, UCS members were allowed to change their main contractors only up to twice a year.

Minister of Public Health and the Permanent Secretary of MOPH. The Director General of the Department of Medical Services, the Secretary General of the Food and Drug Administration, and the Director of Division of Medical Registration are MOPH staff who sit on the Standards and Quality Control Board, which is another governing board of the UCS responsible for quality control.

One area of public fund management that has often been raised as a weakness of the NHSO is cash flow.[8] There were complaints from several public and private health care providers about late payments from the NHSO to compensate for the services provided. The Ministry of Finance is also concerned that the government budget should not be kept in the NHSO account without timely payments. For the NHSO, the difficulty is in the DRG payment for inpatient care when there is a global budget cap. To calculate the price per relative weight, the system needs to know the total number of DRG relative weights being delivered over the period before it can calculate the amount to reimburse. This results in a delay of several months. When providers are late submitting utilization statistics, the payment is further delayed. To address this situation, the NHSO adopted a new system that disburses initial payments in the early phase of a fiscal year based on historical utilization statistics, so that the providers have some cash for operation. The final amount is rectified or adjusted in the last batch of financial transfers.

6. Management of the UCS Benefits Package

The UCS benefits package is comprehensive and includes inpatient and outpatient care, prevention, promotion, and rehabilitation. The benefits package is generally described as categories that will be covered. However, it has a positive list and a negative list that specify specific health conditions or clinical procedures that will be covered or excluded. The benefits package also refers to the National Essential Drug List, which classifies medicines and therapeutics into categories based on effectiveness and cost-effectiveness characteristics.

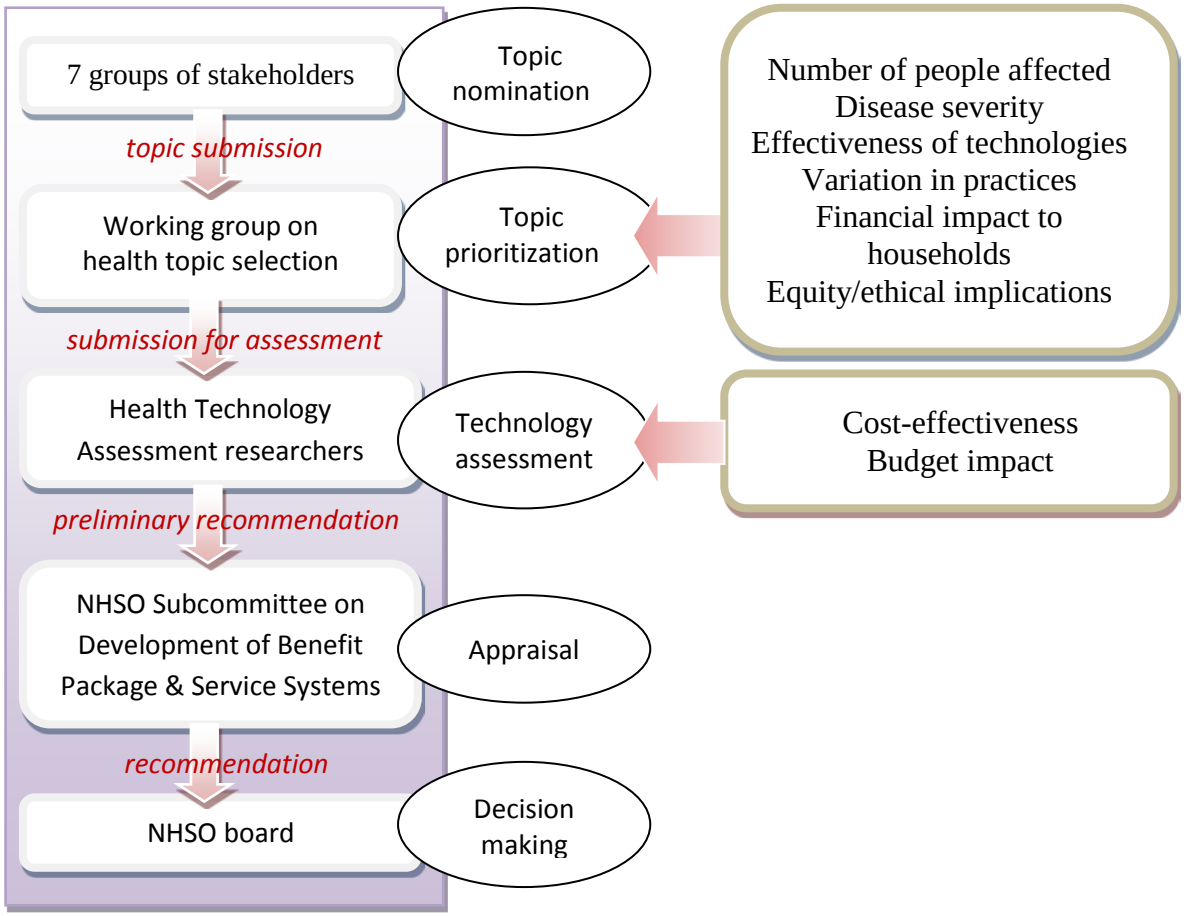
With new health technologies and interventions, the NHSB Committee on Benefits Package is in charge of revising the benefits package and making recommendations to the NHSB on the adoption of new drugs and technologies. Prior to 2010, there were no systematic and transparent mechanisms to make such decisions (Jongudomsuk et al. 2012). A guideline was therefore developed and the committee regularly requests the Health Intervention and Technology Assessment Program and the International Health Policy Program, two technical agencies working on health technology assessment and health system evaluation under the MOPH, to supply evidence such as the effectiveness and cost-effectiveness of various health interventions that will be considered for benefits package expansion.
Financial feasibility, budgetary impact, and ethical considerations are among the important criteria in the decision process (figure 1). A recent example is the case of the Human Papilloma Vaccine, where the Committee on Benefits Package did not accept it in the benefits package even though the vaccine-producing company offered the price more cheaply than was deemed to be cost-effective (Praditsitthikorn et al. 2011).[9] However, there have been treatments or interventions that have been

[8] Other complaints from health care providers include having too many payment mechanisms for different care items and poor management of the P&P program. A more common complaint is not related to UCS management but is about inadequate payment from a low budget.

[9] Explanation for exclusion includes a higher vaccine price than available to other countries, potential budget impact (financial feasibility), and it is more cost-effective to focus on improving the performance of the existing cervical cancer screening program.

included despite the potential long-term affordability challenge, such as antiretroviral and renal replacement therapies (Prakongsai, Tangcharoensathien, and Kasemsup 2006).[10]

Figure 1 Schematic Diagram of the Benefits Package Decision Process since 2010



Source: Modified from Teerawattananon 2012.

7. The Information Environment of the UCS

The UCS requires an extensive information system to register beneficiaries and provider payments, and for monitoring and evaluation of the health system. The NHSO relies on several existing and specially established organizations and internal information management to fulfill its information needs. Key players include:

- The Department of Provincial Administration under the Ministry of Interior, which is in charge of the vital registration system of the country. The national identification number system was developed in 1984 and requires all Thai citizens to have an identification (ID) card with a unique number, which is also used for their house registration. The NHSO works with the Department of Provincial Administration to use the demographic information provided in this

[10] The arguments for renal replacement therapy inclusion include ethical considerations and catastrophic health expenditure prevention.

vital registration database. The UCS also adopted the national ID card as its membership card, so all individual-level information is linked to the national identification number.

- Membership (beneficiary) and utilization statistics are reported regularly on the NHSO website. Financial reports are also available for download on an annual basis. However, individual utilization records are not accessible to the public.
- The Central Office for Health Care Information is an independent, nonprofit institution that was established initially to support the CSMBS reimbursement system. It was instrumental in the development of the information system standards and information-sharing network for the reporting of utilization statistics from all health care providers, especially under the case-based payment system.
- The Thai Case Mix Centre was recently established to develop the necessary tools and standards for a case-mix payment system to support all health insurance agencies.
- The NHSO also has an internal information system for the processing of utilization data for monitoring and evaluation and for policy and planning. The NHSO Bureau of Claims Administration processes the e-claims reported electronically from health care providers.

In addition to routine health information for system management, the NHSO also supports and collaborates with the Health Insurance System Research Office (HISRO), an independent, nonprofit research agency created after the UCS to conduct research and development on health financing and health service system development. There were additional ad-hoc studies on health outcomes and other aspects of health system performance.

For the research community, there is an agreement between the NHSO and the HISRO to use individual utilization statistics for research on health services. To also protect patient privacy, a protocol to make the data and other utilization information available for researchers is being developed. Other major sources of information also came from health and socioeconomic household surveys from the National Statistics Office as well as routine administrative data of health care providers. The completion and timeliness of these data sets may vary, especially for non-MOPH and private sector provider statistics.

8. Monitoring and Evaluation

In addition to a strategic purchasing approach, the UCS also has an internal monitoring and evaluation system to ensure the effectiveness of the program. The NHSO conducts regular audits of electronic records and data from its online reporting system. Based on a set of criteria, claims about which there are suspicions of error will be selected for careful assessment. For example, hospitals that have a higher proportion of serious or accident cases than average or that have cases or treatment procedures beyond their capacity will be screened for claims audit. Cases with inappropriate length of stay based on the DRG, cases with multiple claims, and cases with treatment procedures not compatible with the diagnosis will also be selected.

According to the contract, the NHSO can send an inspector to visit the contracted provider any time, and the orders given by the inspector must be followed within a specified period of time. If the providers are found to provide below-standard care, the NHSO has the right to contract other health care providers to replace the current contractor,[11] and to penalize the offending provider by deducting payments. However, due to limited staff capacity, only occasional visits were made to selected sites, and the visits generally focused on specific issues instead of an overall audit.

In addition to the claims auditing system, the NHSO also uses other monitoring systems such as the use of key performance indicators (KPIs) for performance management. Every year there is an external evaluation of NHSO performance following these KPIs to be reported to the NHSB. The UCS also established a system to allow for complaints and appeals from its members or contractors. A telephone hotline was set up with the number 1330 to receive questions and complaints from the public. In 2011, there were over half a million calls of which only about 1 percent were complaints.

The NHSB has a committee on investigation that is required by law to handle issues or complaints related to inappropriate service fees charged by health care providers, inconvenience in access to care, and substandard or unsatisfied service. The majority of the complaints in 2011 were because of not receiving care according to eligible benefits (1,696 cases), service inconvenience (972 cases), service charges (965 cases), and substandard service (753 cases). The NHSO policy is to address all complaints within one month, and in 2011 about 94 percent of the complaints were resolved within the specified period.

One safeguard system for health care users that was integrated into the National Health Security Act was a no-fault compensation policy aimed at reducing the trend of medical litigation that had been increasing in Thailand over the last decade. According to Section 41 of the National Health Security Act, injuries due to health care services provided under the UCS will be compensated. The patient needs to submit a request for no-fault compensation, which will be considered by a provincial-level committee. If the patient appeals the case, it is sent to the Health Service Standard and Quality Control Board for consideration.

[11] In practice, the NHSO never replaces a contractor, because most areas have only one health care provider (district hospital). Therefore, a threat of punishment was used and the NHSO relies more on a penalty of deduction of payments.

9. UCS Impacts on the Health System and Health Outcomes

Based on an evaluation of the UCS in 2011 by a group of independent international experts (HISRO 2012, 120), the introduction and implementation of the UCS has resulted in at least the following six areas of impact on other components of health systems:

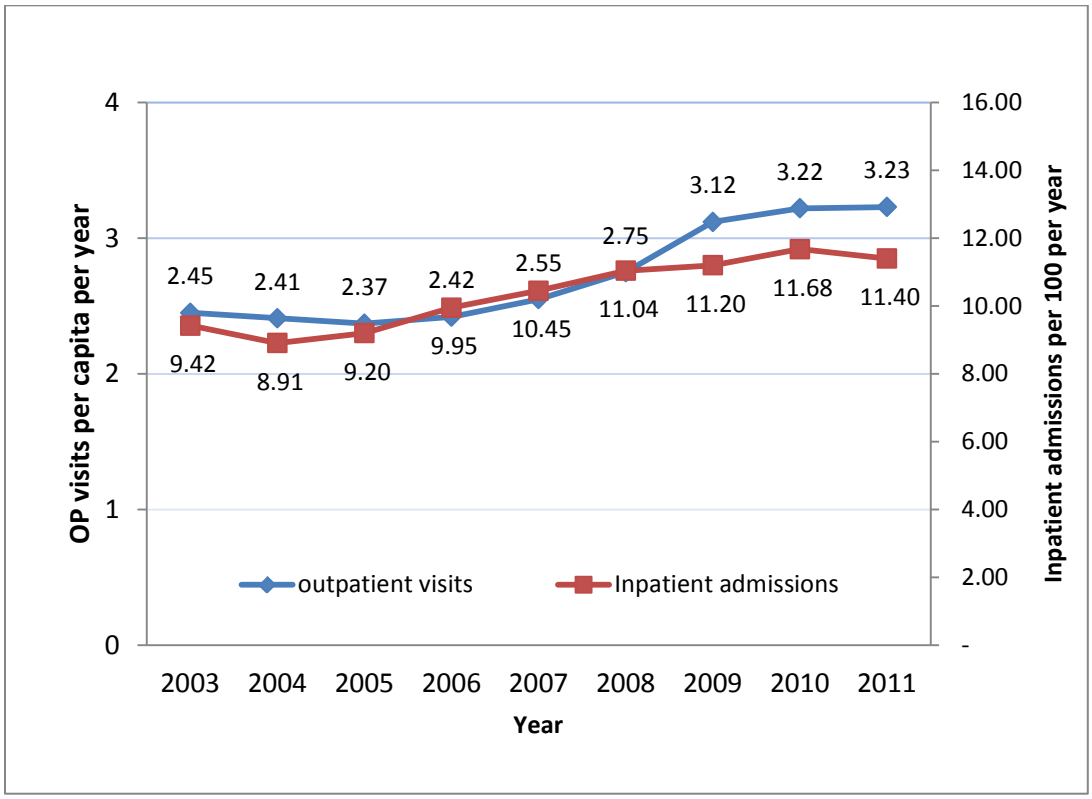
1. The approach of strategic purchasing adopted by the NHSO and the knowledge and know-how generated for its implementation indirectly influenced other major health insurance schemes to be more active in their purchasing. For example, the CSMBS and SSS have considered the use of the DRG system for inpatient care payments. The UCS decision to cover renal replacement therapy and antiretroviral treatment also influenced the SSS to expand its benefits package for their beneficiaries.
2. The UCS led to increased investment in the primary care system through improving the technical quality of, and coordination across, providers at the district level.
3. The UCS contributed significantly to the development of the information system in the health sector. The need to expand coverage to the population not already covered by other schemes led the NHSO to work with the Bureau of Registration Administration to improve the Ministry of Interior's vital registration system and birth registry to better capture the Thai population.
4. The increase in financial autonomy at the hospital level from the UCS payment system relative to the previous budgetary system allowed many health care providers to better respond to the increase in health care utilization by hiring more temporary staff or by providing additional compensation for higher workloads of their staff.
5. The UCS contributed significantly to strengthening the health technology assessment capacity in response to its demand for evidence for benefits package decisions. The UCS also supported the introduction and implementation of the Hospital Accreditation system.
6. The initial phase of the UCS saw higher staff workloads that demanded rapid adjustment from the health care providers to satisfy the increase in health service needs. The UCS focus on curative care also means public health functions, especially the areas that do not receive UCS funding, were adversely affected by a relatively lower level of funding for P&P (Srithamrongsawat et al. 2010).

The same report also shows that health care utilization has increased, demonstrating better access to health care. The incidence of catastrophic health spending and impoverishment from health payments also decreased after introduction of the UCS (Somkotra and Lagrada 2009; Limwattananon, Tangcharoensathien, and Prakongsai 2007). Recent evidence from a team of U.S. economists also confirms that the introduction of the UCS has increased health care utilization especially among the previously uninsured, with a significant reduction in their infant mortality, after controlling for other factors (Gruber, Hendren, and Townsend 2012).

Because the UCS is not a targeting scheme, there was no specific evaluation of the coverage of the poor by the UCS. Overall outpatient and inpatient services among UCS members rose steadily from 2003 to 2011 (NHSO 2012), with outpatient visits per person increasing from 2.45 to 3.23, and inpatient admission per person increasing from 9.42 to 11.40 percent (figure 3). Limwattananon et al. (2012) studied the difference in the outpatient and inpatient utilization rates between the poorest and richest quintiles and found significantly higher use by the poorest group (figure 4). A benefit incidence analysis also confirms that government subsidies went more frequently to the poorest group than the richest.

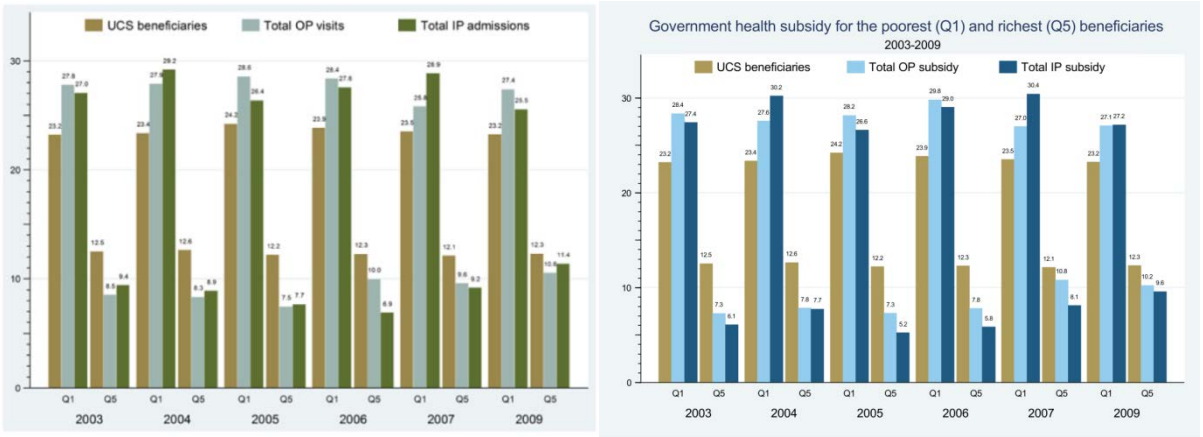
The availability of an extensive network of public health care providers at the district level and no copayment are considered major contributors toward propoor subsidies even without targeting. The relatively long queue at public facilities may be another factor, since richer populations who can afford to pay out-of-pocket privately can choose private clinics or private hospitals when ill. This, however, may pose longer-term problems to the UCS because it may lack broad national support if it is perceived as a low-income program with poor-quality care.

Figure 2 Outpatient Visits and Inpatient Admissions, Thailand, 2003–10



Source: NHSO 2012.

Figure 3 Outpatient and Inpatient Utilization Rates between Richest and Poorest Quintiles, Thailand, 2003–09



Source: Limwattananon et al. 2012.

10. Achieving Universal Coverage within Fiscal Constraints

One important characteristic of the UCS is its focus on cost containment. The introduction of the UCS also expanded health insurance coverage to over 14 million people who were not previously covered by any public health insurance scheme. This requires careful consideration of the budget implications, because the scheme relies entirely on government revenue for funding.

The design of the UCS emphasized cost containment as one of the critical approaches that allows the scheme to cover a large population within prescribed budget constraints. The introduction of the UCS was therefore an opportunity for a major health financing reform when a purchaser-provider split in the public sector was introduced and a "strategic" purchasing approach was pursued. Strategic purchasing refers to active commissioning or contracting of services by the NHSO using incentives from different payment mechanisms to ensure access within budget constraints (Srithamrongsawat et al. 2012).

A capitation payment system was adopted based on SSS experience that this payment mechanism had a very strong cost-containment effect, despite some quality concerns. Each main contractor receives prospective funding for outpatient services based on the number of UCS members registered with them. For inpatient care, even though the UCS also adopted case-based payments using a DRG system, with the aim of reducing underutilization of inpatient care, the system still imposes a "global budget" constraint on this component. This means that the reimbursement value for one point or one unit of DRG weight will vary based on the total points accumulated by all contractors in the system. Thus, the reimbursement level per unit of DRG-adjusted relative weight would be lower if there are more units in total across all providers. This case-based payments system using DRGs with a global budget ceiling allows the UCS to control overall costs to be within the total available funds. The UCS later introduced special payments or fee systems for specific high-cost-care items to reduce underutilization and underreferrals.

In addition to cost containment via the choice of provider payment methods, the UCS employs several additional mechanisms to help contain costs. The pharmaceutical benefit under the UCS is based on the National Essential Drug List, which includes medicines that are selected based on their effectiveness, safety, and cost-effectiveness. It also has a policy of encouraging the use of generic drug prescriptions. Further, the UCS has strong monopsony power to negotiate prices with service providers and suppliers. For high-price equipment and medicine, a central price negotiation system is in place to collectively bargain for best-priced items. Previously, the UCS also engaged in the use of—and the threat to use—compulsory licensing of medicines to obtain cheaper prices of drugs that are still under patent, such as antiretroviral and cancer drugs. It was estimated that from 2008 to 2011, these mechanisms helped NHSO save about 12.5 billion baht (*Thairath Newspaper* 2012).

The UCS also relies on a gatekeeping system to manage the utilization of higher-level care. UCS members are required to register with a specific health care provider (contractor or CUP), which can be a private or public health care provider under the UCS. They must have a primary care visit at the registered provider or in its network unless they self-pay. This gatekeeping is exempted in emergencies, when patients can use any provider.

The strong cost control measures under the UCS system created dissension among providers, who claimed that the payments do not recover costs and that it is an unfair shift of financial risk from the

funding agency to the contracted health care providers. In 2011, the media reported that several public hospitals were operating in the red, although for many this could be the result of cash-flow delays coupled with a national policy to increase staff payments, rather than simply cost recovery. It was argued that because of low cost recovery, some private provider contractors left the UCS, but public providers and those under the MOPH are not allowed to leave.

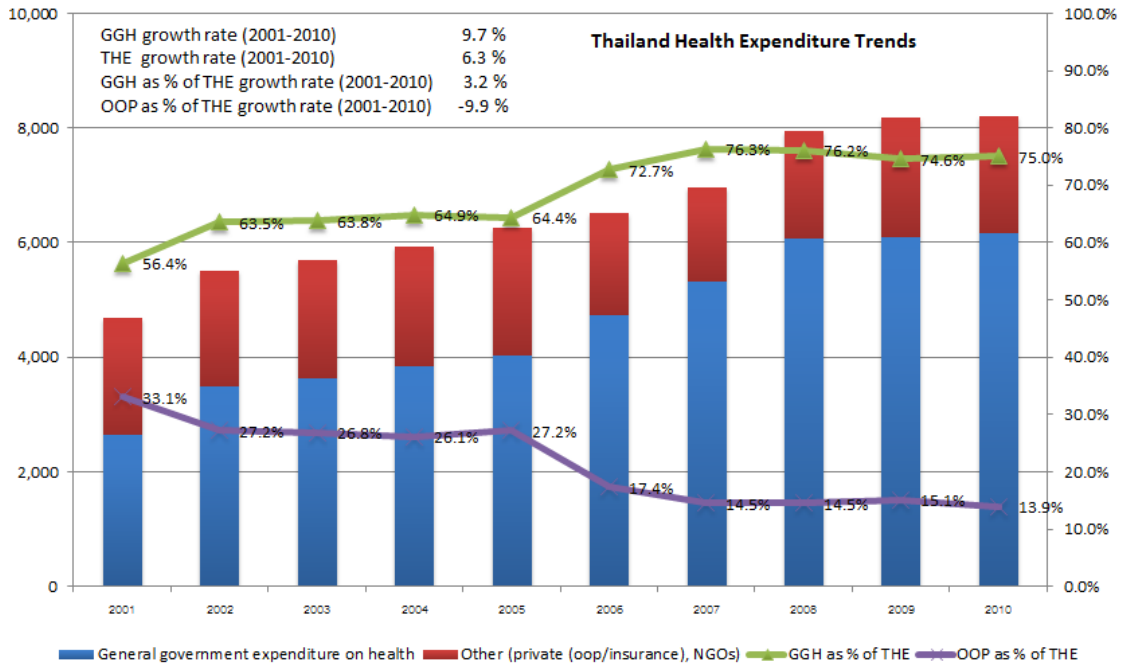
Despite having cost-control measures in place, the overall expenses of the UCS kept increasing. Cost per member rose from 1,201.40 baht in 2002 to 2,693.50 baht in 2011, or from less than 60 billion baht in 2002 to over 120 billion baht in 2011 (table 1). This is equivalent to a 70 percent increase in real terms over the period. Increasing remuneration to health care staff, particularly a rapid rise in extra incentive payments to keep high-skill professionals in the system, was allegedly one of the main reasons for higher overall costs. Together with the rapid rise in costs of the CSMBS, the health spending share of general government expenditure increased from less than 10 percent before the UCS to around 13 percent in 2010, and the share of government health spending in overall health spending increased to around three-quarters (figure 5). In mid-2012, the government announced the goal of trying to freeze the UCS budget increase, with several cost-sharing options such as copayments or deductibles being discussed.

Table 1 Trend in the UCS Budget Per Capita, 2002–11

Year	UCS Budget Per Capita		
	Baht (2012 price)	Baht (2007 price)	USD (2012 price)
2002	1,201.40	1,406.80	27.94
2003	1,201.40	1,380.90	28.93
2004	1,308.70	1,463.90	32.50
2005	1,396.40	1,495.10	34.68
2006	1,718.00	1,756.60	45.30
2007	1,983.40	1,983.40	57.38
2008	2,194.30	2,081.90	65.77
2009	2,298.00	2,199.00	66.93
2010	2,497.20	2,312.20	78.71
2011	2,693.50	2,404.90	88.33

Source: NHSO 2012.)

Figure 4 General Government Expenditure on Health and Total Health Expenditure in Thailand



Sources: Figure by Daniel Cotlear; data from World Health Organization Global Health Expenditure Database.
Note: GGH = General Government Expenditure on Health. OOP = out-of-pocket. THE = Total Health Expenditure. GGH and Other in 2005 constant US$. Annualized growth rates calculated using least squares growth rate method.

11. Pathway toward Universal Coverage

The historical development of the health insurance system toward universal coverage in Thailand can provide useful lessons for other lower- and middle-income countries. Even though the major coverage increase happened with the introduction of the 30-Baht Policy (subsequently UCS) in 2001, Thailand had introduced many health insurance programs and schemes over at least three decades, with mixed success. Since the early 1990s, there have been regular debates and discussions about how to achieve universal coverage, and particularly how to cover the informal sector.

The first major health insurance program was implemented in 1975 to cover the poor. The Medical Welfare Scheme was established by the MOPH to exempt the poor from user fees at government health facilities. The program later expanded to cover the elderly, children, and other underprivileged groups. Although helpful for the underprivileged groups, the program suffered from ineffective targeting and was seriously underfunded (Pannarunothai and Mills 1997).

Following the Medical Welfare Scheme, there were additional health insurance schemes for formal sector employees. The Civil Servant Medical Benefit Scheme (CSMBS) was established in 1980 to cover civil servants, public employees, and their families. The Social Security Scheme (SSS) for private employees was first introduced in 1990. Efforts to expand coverage to informal sector workers were tried with community financing schemes in 1983 and the Voluntary Health Card Scheme in 1991. However, neither program was successful due to the problems of adverse selection and moral hazard that derived from their voluntary nature.

It was clear to policy makers and technocrats that relying on the Voluntary Health Card Scheme or existing schemes (CSMBS and SSS) to expand their coverage to the uninsured population would not be successful. There was strong opposition from SSS beneficiaries, especially employee advocacy networks, which strongly opposed expanding the SSS to other groups out of fear that the existing fund would be used to subsidize the remaining population. The Social Security Office was also concerned about the actuarial feasibility and limited support from its tripartite stakeholders (especially employers). In fact, the SSS was reluctant to expand to small enterprises (that is, those with less than 10 employees) or to employees' dependents, let alone to the informal sector. At the same time, the CSMBS was for a specific population (civil servants) that would be incompatible with the informal sector. Also, the scheme was in itself inefficient and unaffordable to be used for the uninsured. The chosen approach, therefore, was to abolish the Medical Welfare Scheme and the Voluntary Health Card Scheme, and to reform the health financing systems to create a new financing scheme for the non-CSMBS and non-SSS population.

Thailand's path toward universal coverage relied on a common approach of starting with the poor and informal sectors. It soon realized that, like in most countries, expansion to the informal sector was a serious challenge. Voluntary health insurance is not an option unless there is a strong sense of solidarity in the community because of serious adverse selection problems. The existing health financing schemes were too rigid to expand to the broader population because they were not designed to deal with the "big picture" of providing a health financing system for the entire population.

Nevertheless, Thailand learned many lessons from previous health, welfare, and insurance schemes. The development of a health financing infrastructure and technical know-how from the experience gained from previous schemes allowed the system to adopt a new scheme for universal coverage when the political environment was open to a major change. Political leadership was necessary. Having committed policy champions to drive the movement toward universal coverage on both the technical and political fronts was instrumental. With a supportive political climate, policy champions, and infrastructure, Thailand achieved universal coverage in 2002. However, there is still some degree of fragmentation, and there are still problems of inequity across insurance schemes, which the country is struggling to address.

It may not be feasible or affordable for a low- or middle-income country without major health insurance schemes to design a comprehensive universal coverage scheme for the entire population, to be implemented all at once. The country will likely be required to make a tradeoff between having a comprehensive benefits package for specific populations or providing limited benefits for the entire population. Thailand chose to start with comprehensive benefits coverage for specific populations, starting with the poor and informal sectors. The Thai experience shows that it is important to ensure, from the beginning, that all emerging schemes share a "game plan," local technical capacity, and a similar vision of a harmonized health financing system to achieve universal coverage.

12. Pending Agenda

Despite having achieved universal coverage for a decade, there are many challenges facing Thailand's health financing system.

First, the costs of health care in the public sector are rising rapidly and currently account for 15 percent of general government expenditure, an amount that is of major concern to the government. A number of cost-containment measures are being considered under UCS including cost sharing, drug supply management, and cash flow management. Stronger utilization reviews have been implemented under CSMBS.

Second, there has been an increasing push from civil society organizations and interest groups to address the discrepancies in benefits packages and payment mechanisms across the three health insurance schemes. CSMBS beneficiaries enjoy the most privileged package, while SSS beneficiaries have more limited benefits than UCS beneficiaries. There was also fragmentation of the purchasing mechanisms that were administrative burdens to the providers and that created different incentives for medical care among the health insurance schemes. The government has started to address this issue by harmonizing the emergency medical care financing system across schemes so that patient participation does not need to be verified before medical care is provided. The financing systems for renal replacement therapy and for HIV/AIDS patients are also being harmonized.

Third, a supply-side adjustment is needed to respond to health needs and demand for services. The UCS included the expansion of coverage and also financing reform with demand-side financing and strategic purchasing. After 10 years, it has been proven that financing instruments alone are not enough to create the required changes on the provider side. There are still concentrations of hospital beds and staff in the central region, and a shortage of staff in the remote and rural regions of the country. It is not easy to close or downsize existing hospitals, and the civil service system for health workers in the MOPH is too rigid for such change. Further reform of public sector health care providers has been discussed and several models of a new MOPH and provider networks proposed

Annex 1 Thailand Health System Overview

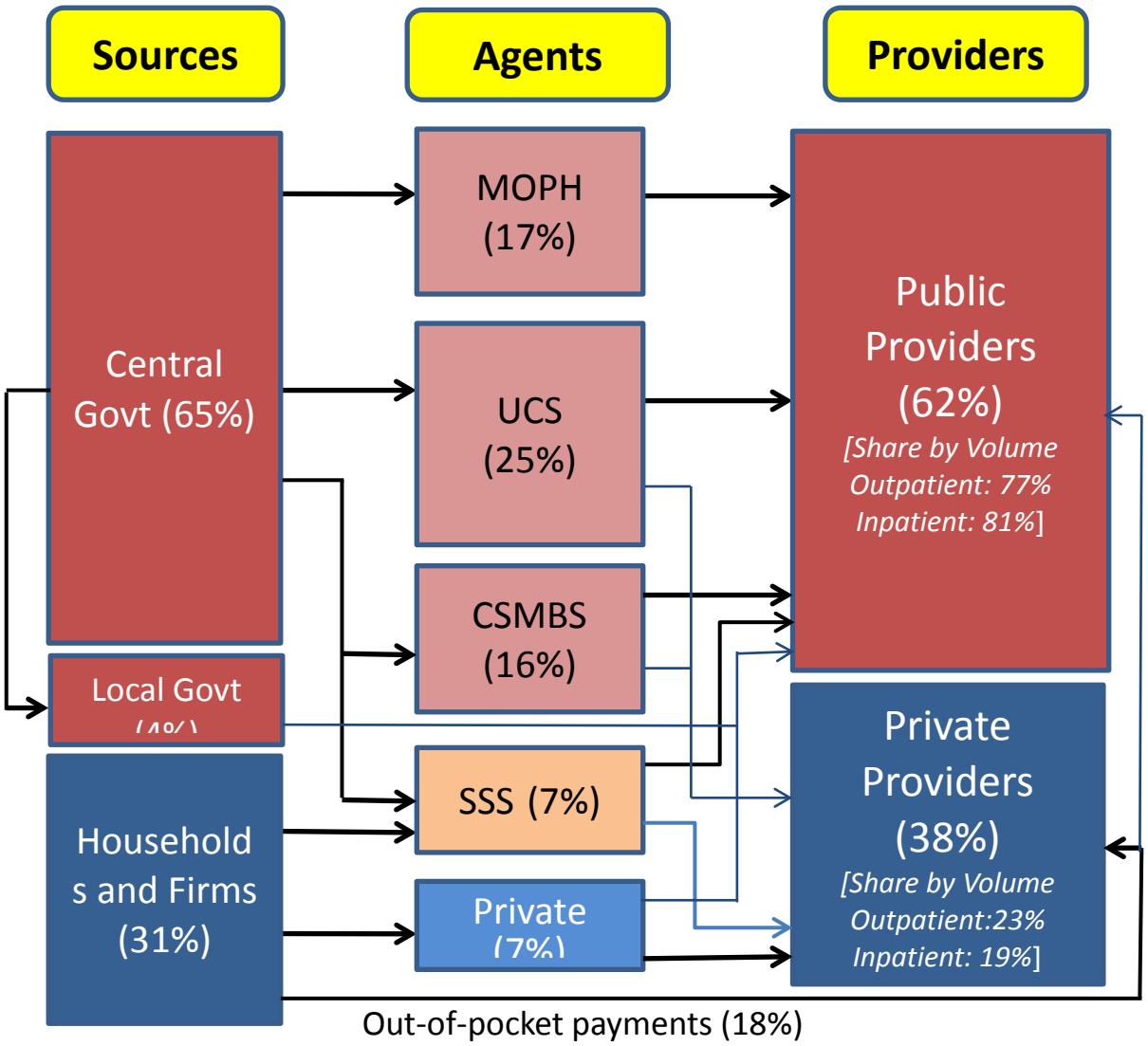
Thailand is a middle-income country in Southeast Asia with a population of almost 70 million. It has benefited from the relatively continuous growth of its economy, which has shifted the country from being agricultural oriented to one with industrial and service sectors. The proportion of the population living in poverty has declined significantly over the last decade, while life expectancy and child survival rates have increased. Other health statistics are generally in line with its income level except for the relatively higher adult mortality, which is partly due to the high incidence of HIV/AIDS.

To understand the Universal Coverage Scheme (UCS), it is important to know the underlying health system, in general, and the overall health financing system, in particular. The Thai health system is complex, with a publicly dominated health care provision system, especially in the rural areas (Faamnuaypol, Ekjampaka, and Watanamano 2011). There is a continuous expansion of private health care providers operating mostly in urban areas. This annex summarizes key characteristics of the Thai health system based on the Thailand Health Profile 2008–2010 by the Ministry of Public Health (Wibulpolprasert 2011).

The Thai health financing system is financed mainly by general government revenue (tax-based financing). According to the latest (2008) National Health Accounts study by the International Health Policy Program-Thailand, in 2008, almost two-thirds of all health funding came from the central government. Local government contributed only 4 percent, and the rest was a direct contribution from households or private firms. The introduction of the UCS and the continuously rising costs of the Civil Servant Medical Benefit Scheme (CSMBS) were the main drivers of the high share of public spending on health compared to the past.

More than 80 percent of national health spending went through fund-pooling mechanisms, and only about 18 percent was direct out-of-pocket spending (NHA Study Group 2012). The UCS was the biggest fund-pooling agent, accounting for about one-fourth of government health spending. The CSMBS and the Ministry of Public Health (MOPH), which are also funded from government revenue, accounted for 16 percent each of government spending. The SSS, which is financed from tripartite contributions (employer, employee, and government), accounted for about 7 percent, and private insurers accounted for another 7 percent. Overall, 60 percent of health financing went to public providers, and the rest went to private providers (figure A.1).

Figure A.1 Main Actors and Fund Flows in the Thai Health System, 2008



Sources: Data on fund flows are from National Health Accounts 2010 by the International Health Policy Program (IHPP)-Thailand. Data on service share (public compared to private) are from the Thailand Health Profile 2008–2010. Smaller funding agents not included in the diagram are non-MOPH public sector agents.

In Thailand, health care services are still mainly under central government control. Most health care providers in the public sector (hospitals and health centers) are under the MOPH. Overall, the public sector accounts for about two-thirds of total hospital numbers and total hospital beds in the country. In addition to being a major steward and regulator of the health system, the MOPH and its network of providers are the main providers of public health and medical services, especially in rural areas. The MOPH has an extensive network of over 800 hospitals including national excellence centers, regional hospitals, provincial general hospitals, and district hospitals. There are nearly 10,000 health centers providing primary care services at the subdistrict (Tambon) level. There are several hundred thousand public health and clinical staff under the MOPH and nearly a million village health volunteers who support village-level health activities.

Other than the MOPH, the Ministry of Education has more than 10 medical schools with tertiary medical care services under its supervision. The Ministry of Defense also has a network of over 60 hospitals across the country that also serves nonmilitary patients. There are also public hospitals under other ministries, but the proportion is smaller. In Bangkok, the Bangkok Metropolitan Administration has a network of primary care clinics and general hospitals to provide services to those living in Bangkok.

Thailand's private sector has continued to grow over the last two decades in all levels of medical care. There are more than 300 private hospitals with over 33,000 beds, more than 17,000 private clinics, and over 11,000 private pharmacies nationwide. Private health care providers are mostly concentrated in big cities and urban areas. Several large, private hospitals in Bangkok also target their medical services to expatriate patients and medical tourists as part of the government-promoted Medical Hub policy.

As shown in figure A.2, the public sector accounted for about 77 percent of all outpatient visits and 81 percent of inpatient cases in the country in 2009.

The CSMBS, SSS, and UCS do not have their own providers; rather, they purchase services from public and private providers. A gatekeeping system is used in the UCS and SSS whereby patients cannot go directly to general or regional hospitals without a referral from district hospitals (except in an emergency or when paying out-of-pocket directly). Almost half (45.3 percent) of the visits are to health care centers, over one-third (37 percent) are to district hospitals, and 17.8 percent are for tertiary care. Coordination of care in the public sector is relatively good, with an effective referral system among levels. The provincial health office acts as the coordinating body for the collaboration between district hospitals and general (provincial) hospitals. Critical and severely ill patients are usually referred to regional hospitals for more intensive medical care.

Description of Public Health, Primary Care, and Key Supply-side Efforts

The MOPH has a strong network of primary care providers covering all villages and subdistricts in the country. Outside of Bangkok, there are almost 50,000 community health posts covering all villages with community health volunteers. There is at least one health center per subdistrict that provides public health services and outpatient primary care by nurse practitioners, health officers, and other health professionals. In some health centers, medical doctors from the district hospitals also provide outpatient clinics on certain days of the week. Bangkok's primary care system is separate from the MOPH, but similar, with 68 health centers. In addition, private clinics and pharmacies are the first contact for medical care for a significant proportion of the population in urban areas.

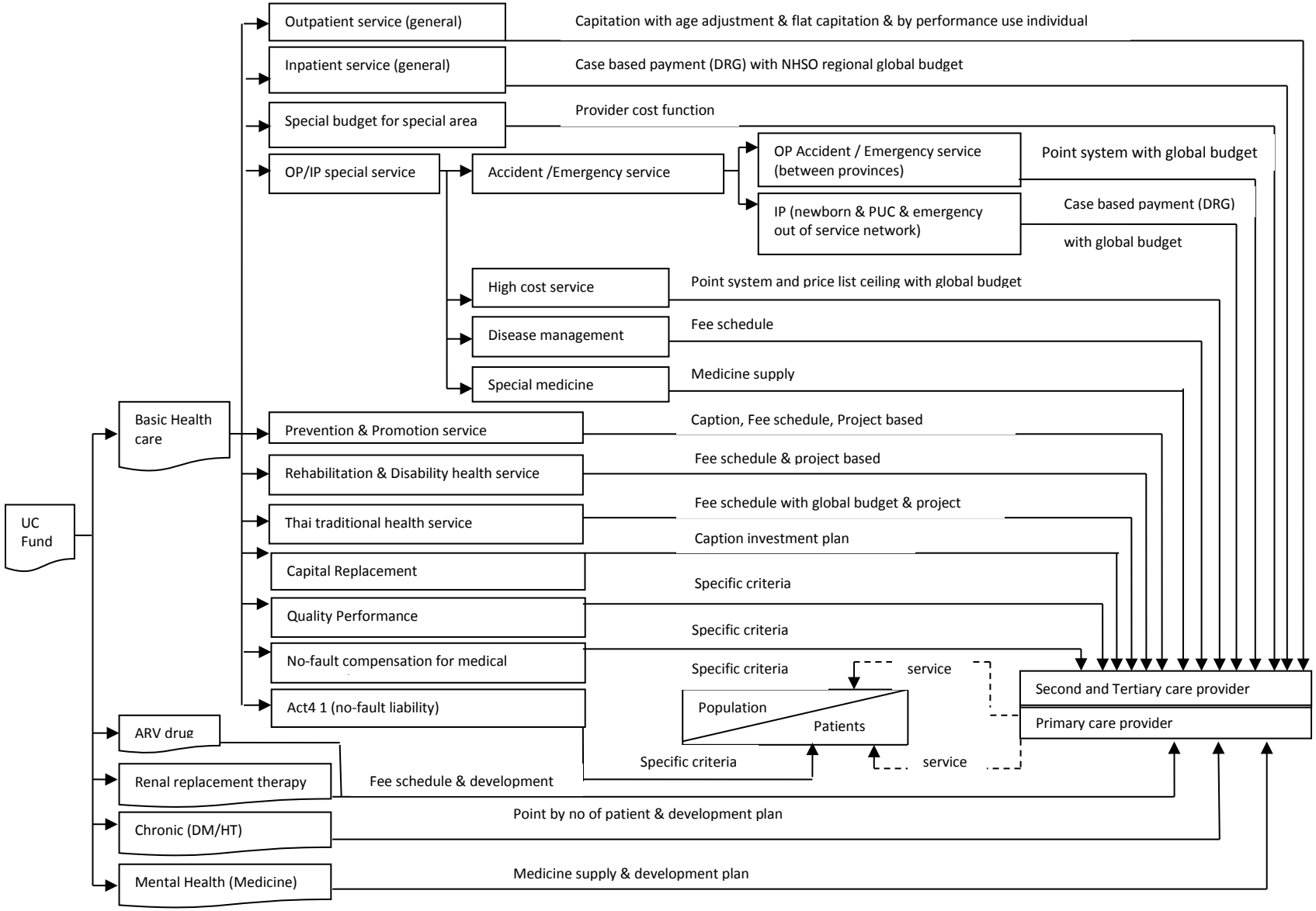
Overall, primary care in Thailand is considered strong with good coverage and good performance. At the subdistrict level, the health center staff use population-based household lists to monitor and implement programs such as the Expanded Programme on Immunization for vaccinations, chronic disease screening, and so forth. The health centers have adequate supplies of medication and are well organized, and they have effective health workers who are dedicated to their tasks. At the village level, the village health volunteers have a list of people in their geographic area of responsibility who have information on households with children, disabled, and chronic-disease patients.

Several programs and projects have been implemented to strengthen the primary care system in the country. The UCS has specials funds available to provide incentives for diabetes and hypertension screening and care. It also gives financial incentives to providers if they complete prenatal care services to pregnant women according to protocols. Subdistrict health funds were also initiated with cofunding from the UCS and local government to support locally driven public health activities in each subdistrict.

Despite having extensive networks of health care providers, challenges still exist in terms of getting health care to remote rural areas where it is difficult to attract and retain qualified health workers. The country has a low doctor-per-population ratio—lower than other countries with a similar economic development level—due to an extended period of limited training capacity. The ratio of nurses to doctor is high, and there is still a large discrepancy in the distribution of doctors and nurses across geographical regions, which is a major challenge for the government. There have been several government initiatives to promote better deployment of the health workforce to provide health services to remote and rural areas of the country. These include:

- A rural recruitment policy to increase the intake of students from remote and rural areas into public medical and nursing schools, including the Collaborative Project to Increase Production of Rural Doctors, the One District One Doctor project, and the One Tambon One Nurse project.
- Compulsory service in rural areas for three years for medical, dental, and pharmaceutical graduates from public universities. There is a penalty payment for medical graduates from public schools who quit before fulfilling the three-year contract to work in the public sector. There are also special quotas for nursing graduates from public training institutes to work in public sector health care providers under special contracts.
- Enhanced financial allowances are given to doctors, dentists, pharmacists, and nurses who work in remote areas, with a higher payment level for more deprived areas.
- Some health professionals also get better opportunities for professional training if they work in rural or remote areas.

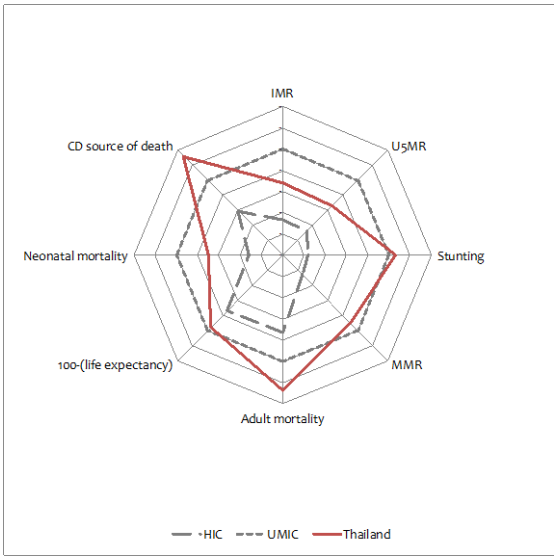
Figure A.2 UCS Payment Mechanism by Service Type as of 2011



Source: Samrit Srithamrongsawat et al. 2012.

Annex 2 Spider Web

I. Outcomes comparisons: Thailand and Upper Middle Income Countries



Note on interpretation:
In this plot 'higher' is 'worse' – since these indicators are positive measures of mortality / morbidity. Life expectancy is converted to be an inverse measure.

The values on the radar plot have been standardized with respect to the average upper middle income country value.

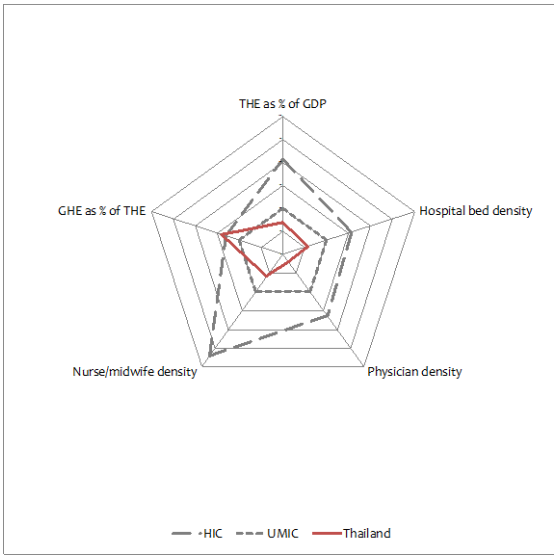
The table below summarizes outcome comparisons with the average upper middle income country (UMIC).

< -50%
[-25% ; -50%]
[-25% ; +25%]
[+25% ; +50%]
> 50%

Country Data	Thailand	UMIC	% Diff.
GNI pc (2000 USD)	1912.9	1899.0	0.7%
IMR	11.2	16.5	-32.1%
U5MR	13.0	19.6	-33.8%
Stunting	15.7	14.8	6.4%
MMR	48.0	53.2	-9.8%
Adult Mortality	204.8	160.6	27.5%
100-Life Expectancy	26.1	27.2	-4.0%
Neonatal Mortality	8.0	11.4	-29.8%
CD mortality	29.0	22.0	31.8%

IMR: Infant mortality rate (2010). U5MR: Under-5 mortality rate (2010). Stunting: prevalence of low height-for-age among children under 5 (2010). MMR: Maternal mortality rate (2010) per 100 000 live births. Adult mortality: Adult mortality rate per 1000 male adults (2010). [100-(life expectancy)]: Life expectancy at birth (2010) subtracted from maximum of 100. Neonatal mortality: Neonatal mortality per 1000 living births. CD as cause of death: Communicable diseases as cause of death (% total). All data from World Bank's World Development Indicators. Income averages for stunting calculated by Bank staff and are unweighted.

II. Inputs comparisons Thailand and Upper Middle Income Countries



Note on interpretation:
This plot shows indicators which measure spending on health or the number of health workers per population.

The values on the radar plot have been standardized with respect to the average upper middle income country value.

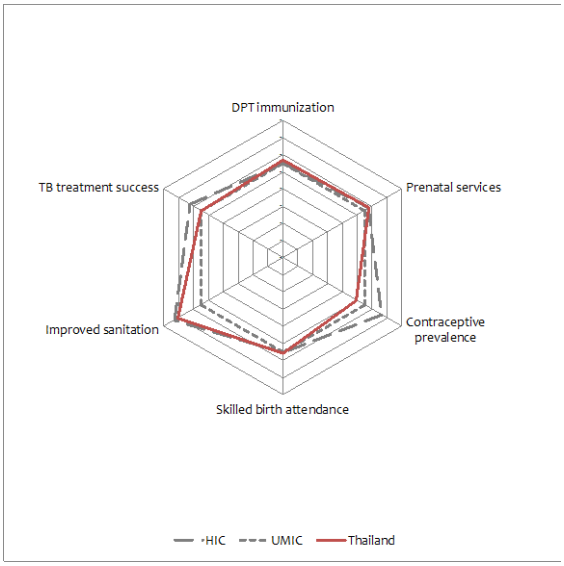
The table below summarizes inputs comparisons with the average upper middle income country (UMIC).

> 50%
[+25% ; +50%]
[+25% ; -25%]
[-25% ; -50%]
< -50%

Country Data	Thailand	UMIC	% Diff.
GNI pc (2000 USD)	1912.9	1899.0	0.7%
THE %GDP	4.3	6.1	-29.6%
Hosp. bed density	2.1	3.7	-42.7%
Phys. density	0.3	1.7	-81.1%
Nur./midwife dens.	1.5	2.6	-41.6%
GHE %THE	75.8	54.3	39.6%

THE as % of GDP: Health expenditure, total (% of GDP) (2010). Hospital bed density: Hospital beds per 1,000 people (latest available year). Physician density: Physicians per 1,000 people (latest available year). Nurse/midwife density: Nurses and midwives per 1,000 people (latest available year). GHE as % of THE/10: Public health expenditure (% of total expenditure on health) (2010). All data from World Bank's World Development Indicators.

III. Coverage comparisons
Thailand and Upper Middle Income Countries



Note on interpretation:
In this plot 'higher' is 'better' – since these indicators are positive measures. In this case, all are percent of the population receiving or having access to a certain health related service.

The values on the radar plot have been standardized with respect to the average upper income country value.

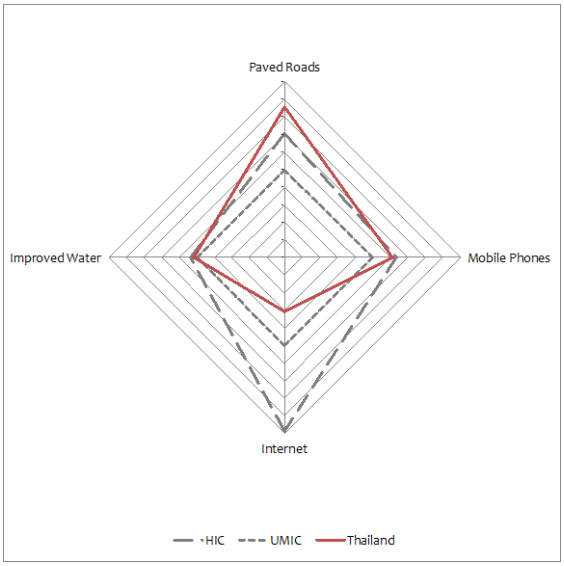
The table below summarizes coverage comparisons with the average upper middle income country (UMIC).

> 50%
[+25% ; +50%]
[+25% ; -25%]
[-25% ; -50%]
< -50%

Country Data	Thailand	UMIC	% Diff.
GNI pc (2000 USD)	1912.9	1899.0	0.7%
DPT	99.0	95.8	3.4%
Prenatal	99.1	93.8	5.7%
Contraceptive	71.5	80.5	-11.2%
Skilled birth	99.4	98.0	1.4%
Sanitation	96.0	73.0	31.5%
TB success	86.0	86.0	0.0%

DPT immunization: % of children aged 12-23 months with DPT immunization (2010). Prenatal services: % of pregnant women receiving prenatal care (latest available year). Contraceptive prevalence: % of women ages 15-49 using contraception (latest available year). Skilled birth attendance: % of all births attended by skilled health staff (latest available year). Improved sanitation: % of population with access to improved sanitation facilities (2010). TB treatment success: Tuberculosis treatment success rate (% of registered cases). All data from World Bank's World Development Indicators.

IV. Infrastructure comparisons
Thailand and Upper Middle Income Countries



Note on interpretation:
In this plot 'higher' is 'better' – since these indicators are positive measures of provision of certain good / service, and a measure of urban development.

The values on the radar plot have been standardized with respect to the average upper middle income country value.

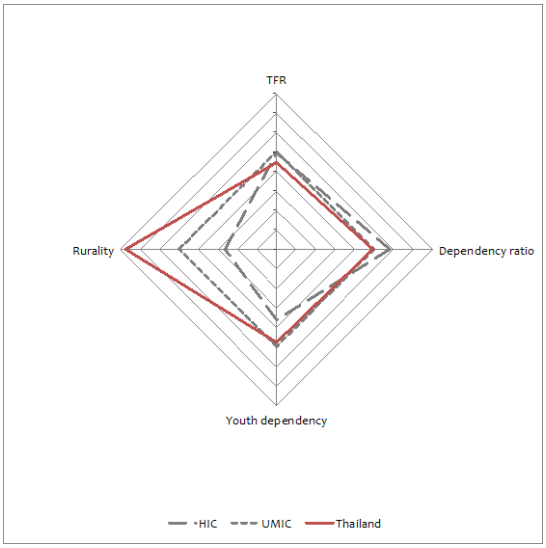
The table below summarizes infrastructure comparisons with the average upper middle income country (UMIC).

> 50%
[+25% ; +50%]
[+25% ; -25%]
[-25% ; -50%]
< -50%

Country Data	Thailand	UMIC	% Diff.
GNI pc (2000 USD)	1912.9	1899.0	0.7%
Paved roads	98.5	57.6	71.1%
Mobile phones	113.2	92.3	22.5%
Internet	23.7	38.3	-38.2%
Water	96.0	92.6	3.7%

Paved roads: % of total roads paved (most recent). Internet users: users per 100 people (2010, with some estimates from prior years). Mobile phone users: mobile cellular subscriptions per 100 people (2010). Access to improved water: % of population with access to improved water source (2010). All data from World Bank's World Development Indicators.

V. Demography comparisons
Thailand and Upper Middle Income Countries



Note on interpretation:

Indicators here measure births per woman, the extent of rurality, and the number of dependents.

The values on the radar plot have been standardized with respect to the average upper middle income country value.

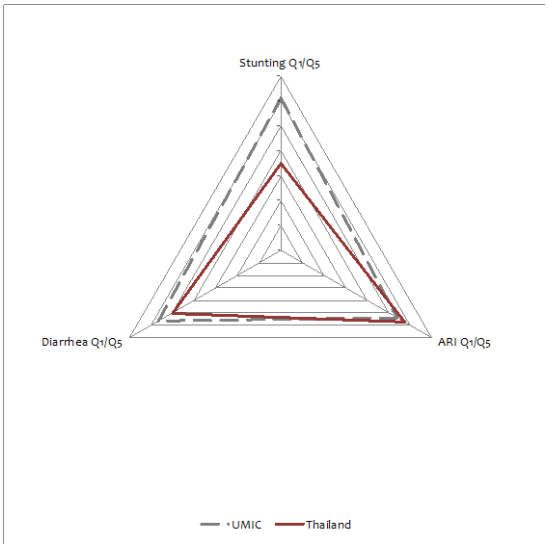
The table below summarizes demographic indicators comparisons with the average upper middle income country (UMIC).

> 50%
[+25% ; +50%]
[+25% ; -25%]
[-25% ; -50%]
< -50%

Country Data	Thailand	UMIC	% Diff.
GNI pc (2000 USD)	1912.9	1899.0	0.7%
TFR	1.6	1.8	-10.7%
Dependency (Total)	41.7	42.2	-1.3%
Youth share	69.8	73.0	-4.4%
Rural pop.	66.0	42.6	55.1%

TFR: total fertility rate (births per woman), 2009. Dependency ratio: % of working-age population (2010) aged less than 15 or more than 64. Youth dependency: % of working-age population (2010) aged less than 15. Rurality: % of total population in rural areas (2010). All data from World Bank's World Development Indicators.

VI. Inequality comparisons
Thailand and Upper Middle Income Countries



Note on interpretation:

In this plot 'higher' is 'inequal' and indicators here measure inequalities in selected health outcomes by taking the ratio of prevalence between Q1 and Q5.

The values on the radar plot have been standardized with respect to the average upper middle income country value. Data are not available for high income countries (HIC).

The table below summarizes inequality indicators comparisons with the average upper middle income country (UMIC).

< -50%
[-25% ; -50%]
[-25% ; +25%]
[+25% ; +50%]
> 50%

Country Data	Thailand	UMIC	% Diff.
GNI pc (2000 USD)	1912.9	1899.0	0.7%
IMR Q1/Q5	NA	2.4	.
U5MR Q1/Q5	NA	2.7	.
Stunting Q1/Q5	2.3	3.3	-29.8%
ARI Q1/Q5	1.6	1.4	14.8%
Diarrhea Q1/Q5	1.7	1.7	0.3%

All indicators measure the ratio of prevalence between the poorest (in Q1, the first wealth distribution quintile) and the richest (in Q5, the fifth wealth distribution quintile). The data (latest data available) are taken from HNPstats (http://data.worldbank.org/data-catalog/HNPquintile).

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The World Bank supports the efforts of countries to share prosperity by transitioning toward universal health coverage (UHC) with the objectives of improving health outcomes, reducing the financial risks associated with ill health, and increasing equity. The Bank recognizes that there are many paths toward UHC and does not endorse a particular path or set of organizational or financial arrangements to reach it. Regardless of the path chosen, the quality of the instruments and institutions countries establish to implement UHC are essential to its success. Countries will face a variety of challenges during the implementation phase as they strive to expand health coverage. With that in mind, the World Bank launched the Universal Health Coverage Studies Series (UNICO Studies Series) to develop knowledge and operational tools designed to help countries tackle these implementation challenges in ways that are fiscally sustainable and that enhance equity and efficiency. The UNICO Studies Series consists of technical papers and country case studies that analyze different issues related to the challenges of UHC policy implementation.

The case studies in the series are based on the use of a standardized protocol to analyze the nuts and bolts of 27 programs in 25 countries that have expanded coverage from the bottom up, starting with the poor and vulnerable. The protocol consists of 300 questions designed to elicit a detailed understanding of how countries are implementing five sets of policies to accomplish the following:

- Manage the benefits package
- Manage processes to include the poor and vulnerable
- Nudge efficiency reforms to the provision of care
- Address new challenges in primary care
- Tweak financing mechanisms to align the incentives of different stakeholders in the health sector

The UNICO Studies Series aims to provide UHC implementers with an expanded toolbox. The protocol, case studies and technical papers are being published as part of the Series. A comparative analysis of the case studies will be available in 2013.

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