TECHNICAL BRIEF

HEALTH FINANCE

VOLUME 1

FEE SCHEDULE

The Partnership Project for Global Health
and Universal Health Coverage
(GLO+UHC)

January 2022

กระทรวงสาธารณสุข MINISTRY OF PUBLIC HEALTH
NHSO National Health Security Office
GLO + UHC
JICA

Contents

Executive summary

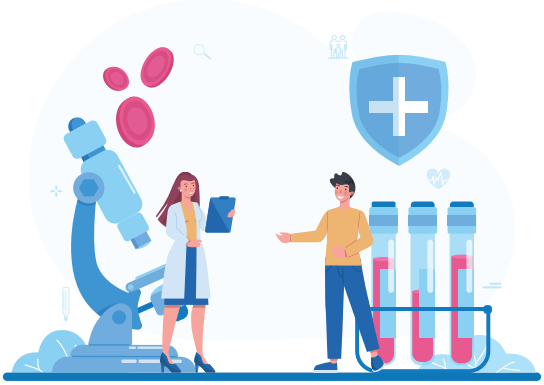
The Partnership Project for Global Health and Universal Health Coverage (GLO+UHC) is a collaborative project between Thailand's Ministry of Public Health (MOPH) and the National Health Security Office (NHSO), and Japan International Cooperation Agency (JICA). Since the 1st phase (2016–2020), the Project has focused on strengthening healthcare finance as a core function of health systems that can enable progress towards universal health coverage (UHC). The 2nd phase of the Project (2020–2023) prioritizes more global collaboration.

Thailand has been known worldwide for achieving and sustaining UHC ahead of other low- and middle-income countries. In 2002, Thailand launched the Universal Coverage Scheme (UCS) targeting around 75% of the population who were uninsured, complementing the existing Civil Servant Medical Benefit Scheme (CSMBS) and the Social Security Scheme (SSS).

The UCS, under the management of NHSO, adopts close-ended provider payment methods; a capitation basis budget for outpatients and a global budget based on the diagnosis-related group (DRG) system for inpatients. To prevent underservice, and to assure access to essential services such as emergency care and use of high-cost medical equipment, as well as to promote involvement of private providers in the UCS, certain services for outpatients who are referred to secondary and tertiary care, accident & emergency cases, and health promotion and disease prevention, are separated from the capitation and DRG systems and are replaced with a fee-for-service model, specific items of which apply an established fixed fee schedule.

NHSO Region 13 Bangkok was selected as an expanded fee schedule model which applies Japan's payment system based on the fee schedule to the Thai context in the 1st phase of the Project. To begin with, a fee schedule committee in Bangkok Region modeled on Japan's Central Social Insurance Medical Council (CSIMC) was established in January 2019, followed by their capacity development activities. Along with suggestions by a Japanese expert, an item list of schedules was prepared and fees for each item were determined. The technical support from Japan and dedicated efforts of Thai officials led to remarkable achievements. As of September 2021, 4,554 items under 14 categories have a fee schedule, accounting for 93% of all items paid under the fee-for-service model, remarkably increased from 21% in 2020. As the Bangkok model was shown to be effective in ensuring provision of adequate treatment within their budget, NHSO established a new national fee schedule committee in September 2021 to expand the system nationwide.

This technical report aims to review and share the experience on how the Thai UCS developed their fee schedule system in cooperation with the GLO+UHC Project. We hope the report serves as a reference for policymakers in other countries in working towards UHC and can enhance UHC implementation around the world.



List of abbreviations

CSIMC	Central Social Insurance Medical Council (Chuikyo)
CSMBS	Civil Servant Medical Benefit Scheme
DRG	Diagnosis-related group
FFS	Fee-for-service
FS	Fee schedule
GLO+UHC	The Partnership Project for Global Health and Universal Health Coverage
IHPP	International Health Policy Program, Thailand
JICA	Japan International Cooperation Agency
MHLW	Ministry of Health, Labour and Welfare
MOPH	Ministry of Public Health
NHSO	National Health Security Office
SSS	Social Security Scheme
UCS	Universal Coverage Scheme
UHC	Universal health coverage
UCEP	Universal Coverage for Emergency Patients

I. Background

1. The history of UCS

Thailand's government started to provide free healthcare services for the poor in 1975 and since then has gradually expanded financial risk protection to its citizens[1]. In 2002, the parliament passed the National Health Security Act B.E. 2545 (2002), which aimed to establish a health system that provides essential health services for the people with sufficient quality using a universal health coverage approach. Since then, all residents are now covered by one of the three public health insurance schemes: i) the Civil Servant Medical Benefit Scheme (CSMBS) for government employees and retirees and their dependents (9% of the total population); ii) the Social Security Scheme (SSS) for private-sector employees (15%); and iii) the Universal Coverage Scheme (UCS) for the remaining 47 million residents (75%) who are not covered by the other two schemes[2].

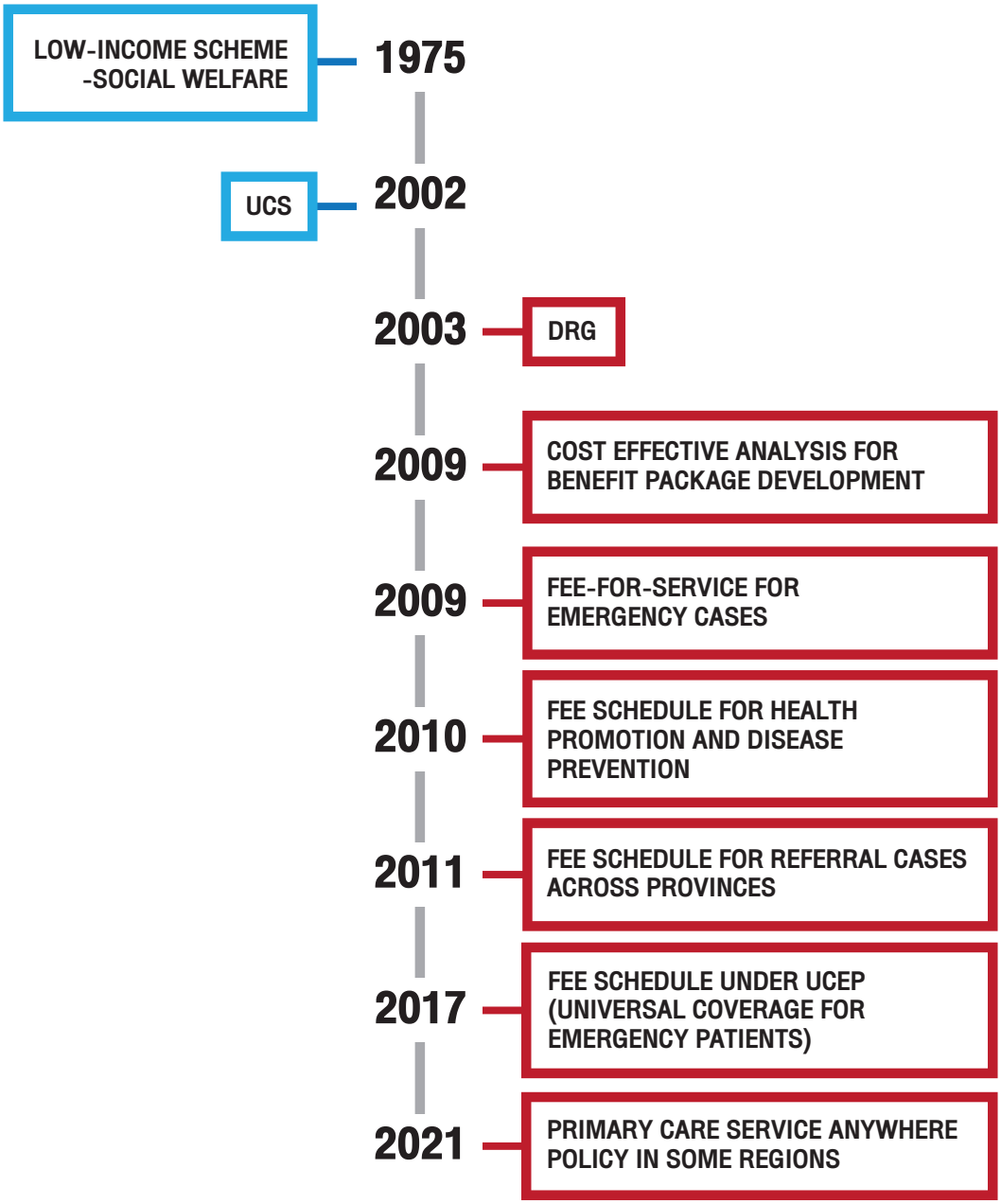


Figure 1. Development of UCS

2. Background of the introduction of fee schedule

The funding of the UCS comes from general tax revenue and is managed by the National Health Security Office (NHSO). The UCS mainly adopts close-ended provider payment methods; a capitation basis budget for outpatients and a global budget based on the Diagnosis-related group (DRG) system for inpatients.

Capitation is a prospective payment system in which a primary healthcare provider receives a fixed per capita payment for registered individuals. Each year, the NHSO estimates the cost of service provision based on 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 cabinet. NHSO adopts an age-adjusted capitation rate considering the different service utilization patterns of different age groups. A capitation budget for general out-patient care as well as health promotion and disease prevention services accounts for around half of the UCS budget.

DRG-based payment is a retrospective payment system in which the treatment cost for inpatients is determined by the patient's disease, its complexity, and treatment details.

Using a close-ended budget helps to ensure fiscal sustainability, control costs and avoid escalation of costs by stipulating the method of disbursement to the various types of service providers. This is also intended to maximize efficiency of disbursements[3]. Alternatively, a close-ended budget may create adverse incentives for underservice. To ensure provision of appropriate healthcare services, and to assure access to essential services such as emergency care and use of high-cost medical equipment, as well as to promote involvement of private providers in the UCS, services for outpatients referred to secondary and tertiary care and accident & emergency cases are separated from the capitation and DRG systems and replaced them with fee-for-service. Specific treatments of referred cases, for example, cataract surgery and renal replacement therapy, apply an established fixed fee schedule. Emergency services in the first 72 hours are also covered by a fee schedule under a national program called Universal Coverage for Emergency Patients (UCEP), which was established in 2017. Specific items of health promotion and disease prevention, for example, cervical cancer screening, have also applied a fee schedule since 2010.

At the start of the GLO+UHC project, NHSO faced some challenges. First, the outpatient expenditure increased every year and exceeded the budget allocated by the government. Second, medical service charges on the same item differed from hospital to hospital. In order to tackle those challenges, the Project initiated the following activities to expand the fee schedule system in the UCS.

3. Model site for fee schedule

Of the 13 regional offices of the NHSO, Region 13 Bangkok was selected as the model to apply Japan's payment system based on the fee schedule to the Thai context in the 1st phase of the Project. Bangkok region was selected because it had the highest number of private healthcare providers registered as a Primary Care Unit. The private sector accounts for only 5% of healthcare providers in the UCS nationwide, but in Bangkok, where 66% of all UCS subscribers register with private providers, the private sector provides 79% of health promotion and prevention services, 55% of outpatient services, and 29% of inpatient services (based on data from 2019)[4].

II. Experience sharing from Japan and development of fee schedule system in Bangkok

1. Invitation program for the high-level delegation

Input	Output
The Project invited the Minister of Public Health (Clinical Professor Piyasakol Sakolsatayadorn) and his high-level delegation to visit Japan in February 2017 to learn about Japan's experiences on the management of its health insurance system for financial sustainability. The delegation consisted of the members of MOPH-NHSO financing sustainability subcommittee, representatives of the NHSO board, executives of the NHSO central and branch offices, technical officers, and various project coordinators.	The outcome of the program was shared and presented in the Cabinet and a NHSO board meeting. As a result, a working team for a fee schedule system design was established under the Project to explore Japan's financial sustainability management and learn how Japan's experience could potentially be applied to the Thai context.

2. Workshops and training course on healthcare finance management

Input	Output
1. **Healthcare finance workshop in Thailand** The Project organized a 3-day healthcare finance workshop in May 2018 to share Japan's policies and experiences in the management of social health insurance and health systems through its fee schedule system and the roles of the central and local governments in the financial management of health insurance. More than 100 officials engaged in health financing joined the workshop. 2. **Healthcare finance training course in Japan** As a follow-up to the previous workshop, a study visit to Japan was arranged for 21 Thai participants in June 2018. The purpose of the visit was to learn from Japan's experience in establishing a fee schedule system by focusing on technical aspects and how to fix problems of using an open-ended budget for fee schedule under a close-ended UCS budget.	Based on the two capacity development opportunities, Thai delegates presented what they learned and decided to adopt Japan's fee schedule system in setting an expanded fee schedule in the NHSO Region 13 outpatient funding system.

Photo 1. Group work at the healthcare finance workshop in May 2018

Photo 2. Courtesy call on the Minister of Health, Labour and Welfare at the healthcare finance training course in Japan in June 2018

3. Supporting the introduction of fee schedule committee

1) Establishing a fee schedule committee

The first significant step to introduce an expanded fee schedule system in Bangkok (NHSO Region 13) was establishing a fee schedule committee modeled on Japan's Central Social Insurance Medical Council (CSIMC), or so called "Chuikyo", in January 2019.

Input	Output
In the workshop in May 2018, a Japanese expert firstly introduced the CSIMC, who play a key role in revising the fee schedule, and after the workshop, repeatedly explained their role.	**Bangkok Fee Schedule Committee:** The National Health Security Board of Region 13, under the meeting in November 2018, issued an order and appointed committee members from the provider side, payer side, and public sector. (see III. Achievement for details.)

CSIMC convenes to advise the Minister of Health, Labour and Welfare on health insurance and health services. The council consists of representatives from the payer side, the provider side and academics representing the public interest. The main role of this council is to revise the fee schedule of medical services and pharmaceuticals[5]. The Health Insurance Bureau of the Ministry of Health, Labour and Welfare (MHLW) drafts new revision ideas, which are discussed among members of the CSIMC. The CSIMC approves a draft of medical fee schedule revisions and reports the findings to the Minister of Health, Labour and Welfare, who is the final decision maker.

2) Capacity development of the Bangkok Fee Schedule Committee

The fee schedule committee was facing many challenges to coordinate interest among providers, payers and social interest groups and set a unit-price for each medical service. For better service under the UCS, an adequate budget allocation was desired by the provider side. On the other hand, the payer side needed to control budget allocation moderately for UCS sustainability. The secretariat of the committee recognized the necessity to negotiate and use reconciliation to set a unit-price suitable for all stakeholders.

Input	Output
The Project arranged a 1-week study trip to Japan in October 2019 to provide deep knowledge on operations of the CSIMC. Eight representatives of the fee schedule committee as well as the secretariat joined. In this trip, the participants visited the former members of the CSIMC which consisted of insurers, healthcare practitioners, and scholars representing public interest groups, and discussed the medical fee system in Japan. This allowed participants to understand the management and operations at CSIMC as well as how to resolve challenging problems based on interviewee's experiences.	The function of the committee and the secretariat and their coordination among stakeholders was strengthened. The fee schedule approval process was well established. After setting the fee schedule by experts, staff of NHSO's Region 13 conducted a hearing of provider's opinions. Problems that emerged were discussed by the committee, and consequently, the National Health Security Board approved the fee schedule. (see III. Achievement for details.)

Key messages from the above study trip included:

- Consensus building
  - The major role of the chairperson of CSIMC is to support the decision-making process when a conflict arises between the payer and provider sides.
  - Negotiation is important. The secretariat has to coordinate with payers, providers, the Ministry of Finance, and the Ministry of Health, Labour and Welfare.
- Setting and revising the fee schedule
  - The drug fee schedule is set based on data obtained from surveys, the results of treatment, and profit margins.
  - The fee schedule for new technology is set based on the budget, demands, and comparative results with the existing technology.

4. Consultation meetings for analysis of the fee schedule

Input	Output
The Japanese expert had several meetings with the NHSO team to conduct a situation analysis on the current fee schedule in NHSO's Bangkok region. Suggestions included: • Set an item list of the fee schedule • Consider an adjustment system regarding variation of hospital profits • Analyze the impact of introducing a fee schedule with each healthcare provider • Analyze the cost data per patient before and after setting the fee schedule	The Bangkok Office conducted a data analysis accordingly. All of the items were classified into 14 categories. Expenditure from medical diagnostic examination and pathology examinations was large. Consequently, the NHSO selected these items to draft a fee schedule. The introduction of this fee schedule for 189 medical diagnostic examination and pathology examinations was estimated to reduce spending by around 12 million baht (359 thousand USD).

Photo 3. Small group discussion with Dr. Songchai, the then Chair of the Bangkok Fee Schedule Committee at the fee schedule workshop in January 2019

Photo 4. Dr. Sakata's lecture at the fee schedule workshop in January 2019

5. Consecutive consultation for setting a fee schedule for each item

Input	Output
Setting the fee schedule depends on political judgment. A balance is needed in terms of budget reduction and impact avoidance. Nonetheless, the Japanese expert suggested to simulate the percentile at 50% and to consider adding an additional 5% so that the item price is as close to the price charged by the service unit.	For all items, except for drug fees, NHSO Bangkok decided to set the fee schedule price using a 50% percentile plus 10% based on the simulation. The drug fee schedule was set by NHSO and the Faculty of Pharmaceutical Sciences of Chulalongkorn University as shown in Table 1. If the estimated cost is small, the fee schedule is fixed. If the cost is high, the fee schedule is adjusted using a percentage.

Table 1. Principle concept of drug fee schedule

Estimate Cost (Baht)	Fee Schedule (Baht)
0.01 - 0.20	0.50
0.21-0.50	1.00
0.51-1.00	1.50
1.01-10.00	1.50+125% in excess of 1
10.01-100.00	13+120% in excess of 10
100.01-1,000	126+115% in excess of 100
>1,000	1,161+110% in excess of 1,000

Photo 5. Consultation meeting between the Japanese expert and the Director and officers of NHSO Region 13 Bangkok in August 2019

III. Achievements

1. Establishment of the Bangkok Fee Schedule Committee

A fee schedule committee in Bangkok Region modeled on Japan's CSIMC was established in January 2019. The committee consists of 21 members including 8 from the providers side, 4 from the payers side, 7 experts and 2 from the public sector. The committee has a meeting approximately every 2 months. The role and responsibilities of the committee is stipulated as follows.

① To review expenditures of outpatient services provided by public and private healthcare centers under the UCS for outpatients within Bangkok (Region 13);

② To determine and adjust payment rates for items or activities of outpatient services provided under the UCS for outpatients within Bangkok to be in line with the actual cost for public and private healthcare centers;

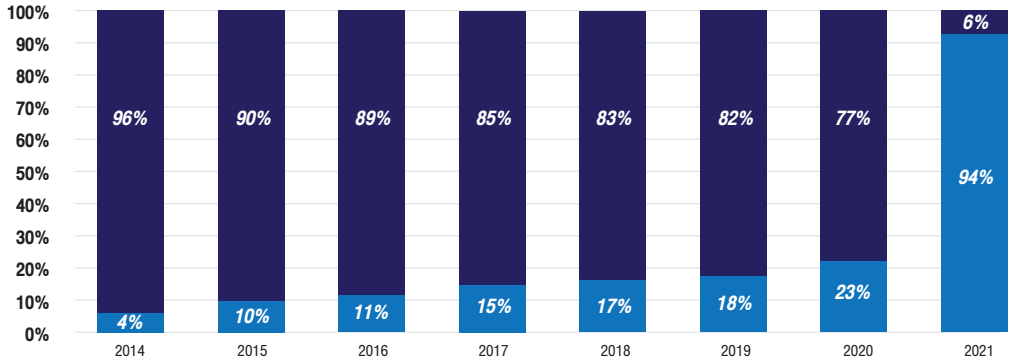
③ To determine conditions for reimbursement suitable to the circumstances and context of the region;

④ To revise payment rates for items under the UCS for outpatients within Bangkok every 2 years, taking into consideration any new medical interventions deemed appropriate for inclusion into the benefit package; and

⑤ To conduct other duties as assigned by the National Health Security Board of the Bangkok Region.

2. Increase in the percentage of fee schedule items out of fee-for-service items

A number of items that applied a fee-for-service were replaced by a fee schedule in 2021 following the capacity development activities of the fee schedule committee. As of September 2021, based on the committee's suggestions, the regional board approved 4,554 items under 14 categories, accounting for 94% of all items paid under the fee-for-service. NHSO plans to expand the system nationwide and establish a new national fee schedule committee in September 2021.



	2014	2015	2016	2017	2018	2019	2020	2021
FFS	4,666	4,416	4,361	4,196	4,136	4,096	3,943	283
FS	171	421	476	641	701	741	894	4,554

Figure 2. Fee schedule vs fee-for-service by items in NHSO Region 13, Bangkok. FFS: Fee-for-service. FS: Fee schedule.

IV. Lesson learned and way forward

1. Impact of introducing a fee schedule and the disadvantage of capitation

1) Financial impact

Health expenditure of NHSO's Region 13 Bangkok is estimated to have reduced by 10% in 2021 from the previous year. Looking at the breakdown by items, outpatient referral has reduced by 7%, emergency has dropped by 8%, and disability use has reduced by 16%. By healthcare providers, significant decreases were seen in private clinics (48%) and private hospitals (41%) while a decrease of 7% was seen in public hospitals.

2) Impact to patients

The fee schedule system could help solve the issue of underservice under the capitation system. On the other hand, a fee-for-service system brings supplier-induced demand, i.e., physicians recommend or encourage patients to receive more care than is necessary for their own profit. However, the effect of a fee schedule on quality of care, including overtreatment, is unknown. In January 2021, the Bangkok fee schedule committee assigned working teams to follow up the impact of the fee schedule list on patients.

Table 2. Advantages and disadvantages of each payment mechanism

	CLOSE-ENDED PAYMENT	OPEN-ENDED PAYMENT (FEE-FOR-SERVICE)	
	CAPITATION	WITHOUT FIXED SCHEDULE	FEE SCHEDULE
ADVANTAGES	• Able to constrain budget compared to fee-for-service without a fixed schedule • Inclined to focus more on health promotion and disease prevention	• Incentivize private health-care providers to join the public scheme	• Incentivize private health-care providers to join the public scheme • Able to constrain budget compared to fee-for-service without fixed schedule
DISADVANTAGES	• Under services by no attraction for healthcare providers with little profit	• Supplier-induced demand • Difficult to control the budget	• Supplier-induced demand

2. Current challenge of fee schedule

As stated above, supplier-induced demand is the main negative effect of a fee-for-service system. In this regards, NHSO Bangkok raises key challenges including: i) setting up the patient conditions for a fee schedule, especially for expensive items such as laboratory tests that require new techniques, and ii) an assessment of the effect of the fee schedule and quality of care.

3. Lesson learned

- A fee schedule system could help solve the issue of underservice in Thailand, a country that is based on capitation.
- High-level commitment is essential. The development of a fee schedule system in the UCS is strongly supported by the Minister of Public Health and senior officials including NHSO executives who visited Japan and learned Japan's experiences in the management of health insurance system for financial sustainability.
- It is important that a country receives continuous interventions by the same coordinators and experts. Developing a fee schedule system is a year-long process. One country cannot simply copy and introduce the fee schedule system of another country. It needs to apply a model to suit its own system step by step, and then tackle new challenges at every step. For example, after NHSO established the Bangkok Fee Schedule Committee, the committee members faced some difficulties, then the Project offered an opportunity for interviewing the Japanese former members of CSIMC for capacity development. Continuous follow-up is necessary for effective and timely interventions.
- The fee schedule system contributed to constraining outpatient spending. It is estimated that the outpatient budget spending in the NHSO Region 13 Bangkok in 2021 decreased by 0.3% from 2018, whereas the whole NHSO budget has seen a gradual increase.

4. Way forward

- To scale up the fee schedule system to the whole nation. NHSO recognizes the expanded fee schedule system in Bangkok as an effective strategy to ensure provision of adequate treatment that remains within their budget. The fee schedule will be applied to outpatient services of referral cases both across and within provinces in some regions under the so called "Primary care service anywhere policy" first and expanded nationwide in the near future.
- To assess the impact of a fee schedule on providers, payers, and patients. Such financial and quality assessment will be essential in order to provide efficient and effective services under the fee schedule system.
- To learn from Japan in terms of overcoming new challenges that arise with the introduction or expansion of new systems, such as setting reimbursement conditions in the fee schedule. The Project will further work in close cooperation with NHSO and follow up the situation as required.
- To disseminate Thailand's experience and knowledge including study findings on economical effectiveness of the fee schedule to other countries. Through its rich experiences in designing and implementing UHC, Thailand has actively assisted other developing countries in working towards their own UHC. Thailand's model of the fee schedule system may serve as a reference for other developing countries too. The Project supports and promotes the south-south collaboration.

Acknowledgement

The GLO+UHC Project has been supported by many people. We'd like to acknowledge the Bangkok Fee Schedule Committee members, with special appreciation to Dr. Suwit Wibulpolprasert and Police Major General Dr. Songchai Simaroj, former chairs of the committee, for their powerful impetus toward the progress of the fee schedule system. We are grateful to all of the fee schedule working team members with special appreciation to Dr. Weraphan Leethanakul and Mr. Pratueang Paodit, who led the team to remarkable achievements and provided information for the technical brief. We'd like to thank all the participants who joined our activities for their dedicated efforts in improving the fee schedule system. Our appreciation also goes out to the Project managers of NHSO, Dr. Kanitsorn Sumriddetchkajorn and Ms. Wilailuk Wisasa for their assistance and coordination. We thank Ms. Sietakal Nilkang for the editorial help.

We also would like to express our sincere gratitude to Japanese resource persons from academia, healthcare and welfare providers, MHLW, and former CSIMC members. Last but not least, our special appreciation goes out to Dr. Nobuo Sakata, who gave great technical advice over many years. Without his support, it would have been extremely difficult to have achieved the current fee schedule system in Bangkok.

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Resource centers

NHSO	http://eng.nhso.go.th/view/1/Home/EN-US
IHPP	https://resourceihpp.com/site/home
GLO+UHC	http://eng.nhso.go.th/view/1/GLO_UHC_Project/EN-US

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