DEVELOPMENT
OF THE BENEFITS PACKAGE

FOR THE UNIVERSAL COVERAGE SCHEME

NHSO
National Health Security Office

FREQUENTLY ASKED QUESTIONS

Benefits package is an issue of high interest in countries which are on the journey to establish or develop universal health coverage. Thailand is among the first low- and middle-income countries where a universal health coverage is in place to serve all Thais. It was rolled out in 2001 and continuously developed since.

In developing a benefits package, there are various important issues to consider. Questions raised during study visits usually evolve around Thai experience and are potentially beneficial to other countries. These range from the system's strengths to weakness to lessons learned from real world practice and many more. Some example are as follows.

- What is a benefits package? Why is it important? What are its key features?
- There are pharmaceutical and non-pharmaceutical benefits packages in Thailand. How does each complement the other?
- How is the initial benefits package under the Universal Coverage Scheme (UCS) determined? How is the scope of benefits provided identified?
- How does Thailand expand non-pharmaceutical benefits package? How does Thailand manage existing service in the benefits package when a better alternative is included?
- What is the reason behind the current design and process of the development of the benefits package under UCS?
- How is evidence-informed benefits package development process implemented in real world practice?
- Why should stakeholders be engaged in the benefits package development process? What does Thailand do to encourage the engagement?
- In Thai context, are results from academic evidence strictly follow when it comes to inclusion decisions?
- How to ensure that the benefits package '**leave no one behind**' according to a principle of universal health coverage?
- What are the strengths and considerations of the current benefits package development process in Thailand?
- What are the lessons learned, do's and don'ts in the development of benefits package from Thai experience?

GET TO KNOW
HEALTH BENEFITS PACKAGE

WHAT IS A BENEFITS PACKAGE?

A health benefits package is a set of health services or products covered by a health insurance scheme, for example a public, government- financed ones, which everyone under its care is entitled to. The benefits package should include services or products that can be implemented with available fundings.

WHY IS A BENEFITS PACKAGE IMPORTANT?

Having a benefits package in place means there is an explicit scope of health services and products provided to the beneficiaries. Such scope is useful in budget planning to provide the benefits.

WHAT DOES AN APPROPRIATE BENEFITS PACKAGE LOOK LIKE?

A benefits package should be designed based on the feasibility of service and product provisions as well as local context. The package should cover different types of essential health services and products. Specific details of the benefits may be specified, e.g. specifying criteria of use or indications for services and products, or left general.

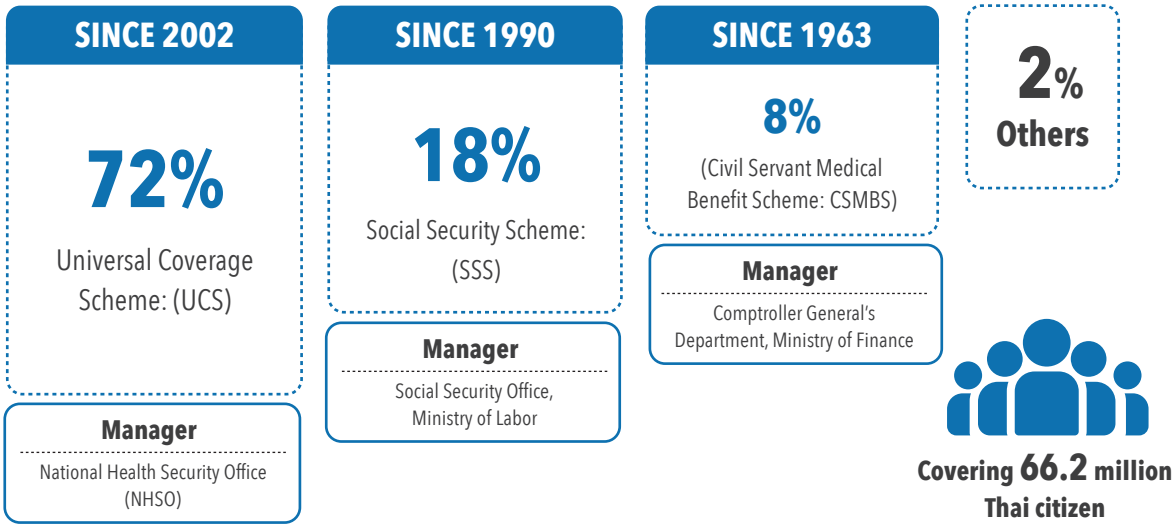
THAI PUBLIC HEALTH INSURANCE SCHEMES:
WHAT ARE THEY AND FOR WHOM?

In 2002, Thailand enacted the National Health Security Ace B.E. 2545, stating '**every individual is entitled to quality and efficient public health services**.' The Act called for the establishment of the National Health Security Office (NHSO) to manage budgets and funds, process payment to service providing units and analyze information on public health system. Since then, Thailand has 3 main public health insurance schemes for different groups of population, as follows.

1. **Civil Servant Medical Benefits Scheme (CSMBS)** for government officers and employees
2. **Social Security Scheme (SSS)** for private sector employees and voluntary insured
3. **Universal Coverage Scheme (UCS)** for Thai citizens not covered by the other two schemes, state enterprise benefits schemes, or other public sector benefits schemes

   Note: *CSMBS and SSS have been in existence long before the enactment of the Act*

Thai public health insurance schemes currently cover 99.95% of Thai population, and UCS is the biggest in terms of population coverage (72% of Thai population).



Benefits packages under the three schemes covers services for health promotion and disease prevention, diagnosis, treatments, rehabilitation, and home palliative care, and are constantly developed to enable people's access to essential and effective health services according to ever-advancing knowledge and technologies.

There are two main types of benefits package. The pharmaceutical benefits package is called National List of Essential Medicines. The three schemes will refer to the medicines in this list as the basic pharmaceutical benefits provided. The other is non-pharmaceutical benefits package, e.g. procedure and medical devices, which may vary from one scheme to another because those in charge of each scheme will consider and make the inclusion decision separately.

The benefits package under UCS, which have the highest population coverage, is defined as 'provide protection from all diseases.' However, there are exceptions for some services (negative list), as follows.

NEGATIVE LIST UNDER UNIVERSAL COVERAGE SCHEME

SERVICES EXCEEDING BASIC NECESSITY

1. Infertility services
2. Cosmetic surgery
3. Services that are still in research
4. Overdiagnosis or treatment without medical indication

SERVICES COVERED BY OTHER SPECIFIC SOURCE OF BUDGET

1. Services for injuries from vehicle accidents under the Protection for Motor Vehicle Accident Victims
2. Treatment for drug addicts **except** for opium and derivatives addicts who are willing to be treated with methadone

OTHER SERVICES

1. The same disease with more than 180-day hospitalizations **except** in unavoidable cases due to complications or medical indications
2. Organ transplantation **except** kidney transplants, liver transplants in those younger than 18 years with biliary atresia, heart transplants, and hematopoietic stem cell transplants

THE DEVELOPMENT
OF BENEFITS PACKAGE UNDER UNIVERSAL COVERAGE SCHEME IN THAILAND

In the early stage, NHSO and experts and stakeholders came together to design a initial benefits package under the UCS. The benefits package under UCS built upon other existing public insurance programs in Thailand. At the same time, the appropriate principle of funds management was determined so the benefits package correspond to the National Health Security Act.

To keep the benefits package relevant, its constant development by organizations, entities, and groups of people is warranted. This is because health technologies and knowledges are ever changing. Meanwhile, there are always room for the improvement of benefits packages.

Therefore, the National Health Security Board recognize the need to explicitly and appropriately include new benefits through the operation of the Subcommittee for the Development of Benefits Package and Service Delivery, established in 2003.

The Subcommittee is tasked to consider and identify essential health services which are suitable to be included in the benefits package under UCS and provide recommendations on health service system development to the National Health Security Board. Moreover, The Bureau of Policy and Planning together with other bureaus under the NHSO collates, conduct situation and demand analysis, and identify issues and recommendations to include new services or efficiently expand the access and effective coverage of existing ones in the benefits package.

From the early phase of the benefits package development by the entities under NHSO, issues and limitations are identified. A concern arises from inclusion decisions being made by a group of decision makers behind closed door. There are also demands for clarification whether academic evidence is used to inform the decisions. Moreover, real world experiences lead to a realization the benefits package might still lack some essential health services while some benefits are not accessible to all due to their inadequate distribution. Some health services are costly to the providers.

To address the issues, the subcommittee therefore appoint the International Health Policy Program (IHPP) and Health Intervention and Technology Assessment Program (HITAP), which are entities under the Ministry of Public Health, to conduct 'the Universal Health Coverage Benefits Package of Thailand (UCBP)' project, starting 2009.

THE UNIVERSAL COVERAGE BENEFITS PACKAGE PROCESS

To address concerns identified during the early stage, the process for developing the benefits package under UCS is designed to be systematic, transparent, provide comprehensive service coverages, and informed by evidence with the participation of different groups of stakeholders. Decisions in the process are made with considerations of multiple criteria at different stages of the process, especially for topic selection using prioritization criteria and and inclusion decision by policy makers.

Therefore, the UCBP project is designed to be a process to select health services to be included in the benefits package from those nominated. Stakeholders can be involved at different stages of the process. In 2009 - 2016, the process was managed by IHPP and HITAP before NHSO took over the management role and made some adjustment to the process.

2003

APPOINTMENT OF A BODY TO OVERSEE BENEFITS PACKAGE DEVELOPMENT

The National Health Security Board appointed the Subcommittee for the Development of Benefits Package and Service Delivery to consider essential and appropriate health services to be included in the benefits package under the UCS and to provide recommendations to the Board on developing service systems.

However, issues still arose from this practice.

2009

THE INITIATION OF BENEFITS PACKAGE DEVELOPMENT PROCESS

To tackle the concern, the Universal Health Coverage Benefit Package of Thailand (UCBP) project was initiated. Under this project. The project ran between 2009-2016.

2017

THE CHANGE IN THE MANAGER OF THE PROCESS

After the UCBP project ended in 2016, NHSO became the manager of the benefits package development process. There have been changes made to the process although the core principles remain the same.

THE UCBP PROCESS:
NOMINATE-SELECT-ASSESS-DECIDE

STEP 1 NOMINATION, PRIORITIZATION, AND SELECTION OF TOPICS OR HEALTH TECHNOLOGIES

To enhance transparency and enable stakholder participation, the UCBP calls for nomination by stakeholders on topics or health technologies that should be included in the benefits package. Currently, stakeholders are categorized into 9 groups. Per an annual nomination cycle, each group can nominate maximum 5 topics. Among the 5 topics, it is required that at least one is on health promotion and disease prevention and at least one is on effective coverage or access to care because NHSO perceives these areas crucial and attention from all parties are required.

Effective coverage topics are topics about health services for a specific disease or health problems as a whole which patients/service users are not fully benefiting from

Access to care topics are topics about single intervention, e.g. screening, which are evidenced to be inaccessible to patients/service users or implausible for service providers to offer

UCBP PROCESS IN ACTION: THE CASE OF SCREENING AND PROVISION OF EYEGLASSESS FOR CHILDREN WITH REFRACTIVE ERRORS

Since the inception of UCBP project, various health technologies and services has been added to the benefits package. Among these is the screening for and correction of refractive errors in children which is included in the benefits package in 2016.

This benefits provide refractive error screenings to 3-12 year-old children. After a screening is conducted annually by their teacher with visual acuity test chart, the result is reported to health facility in the school's proximity for those with refractive errors to be further diagnosed and treated. In the fiscal year 2016, NHSO allocated 14 milllion Bahts to procure and provide 20,000 pairs of eyeglasses for children in need. The budget is elevated to 17.5 million Bahts for 25,000 pairs in the 2017 fiscal year.

This case study well demonstrates the UCBP in action, stakeholder participation which shape benefits to be relavant to Thai context, and the use of academic evidence to inform policy.

What is the story behind this benefits? Why are eyesight screening and correction with eyeglasses selected? Who nominated this topic? And what are the steps the topic go through before this stage? The following sections will illustrate in more details.

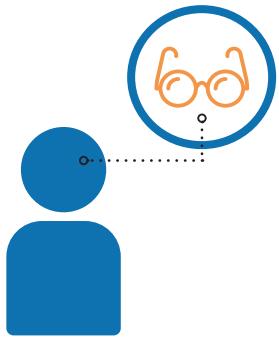
THE 9 STAKEHOLDER GROUPS WHO CAN NOMINATE TOPICS ARE:

STAKEHOLDER GROUPS	STAKEHOLDERS
Policy makers	Departments in Ministry of Public Health, Social Security Office, Comptroller's General Department, Office of National Economic and Social Development Council
Health professionals	Royal colleges of physicians and medical associations
Public health academics	Academics from faculty of public health, pharmacy, nursing and faculty of economics with health economics program
Civic groups	Non-profit organizations in UCS
Patient groups	Patient groups in UCS
Laypeople	Laypeople from annual public hearings
Technology manufacturers	Thai Medical Device Technology Industry Association
Health innovators	Thailand Center of Excellence for Life Sciences (TCELS), National Innovation Agency (NIA), National Science and Technology Development Agency (NSTDA), Thailand Science Research and Innovation (TSRI), National Research Council of Thailand (NRCT)
Related commitees/ subcommittees and working groups	-

Originally, stakeholders are categorized into 7 groups and in 2017, health Innovator group and related commitees/subcommittees and working groups are added to the list to ensure the inclusiveness of all relevant stakeholders in the society, especially when health innovators heavily involves and are most updated on new health technologies.

For each nomination round, the stakeholder groups will convene meetings or hearing process to gather inputs on topics from members. The topics are then submitted through two channels: annual public hearing forum for patient groups, civic groups, laypeople, and health professionals and through website http://register.nhso.go.th/ucbp/ for other groups.

The channels for topic submission are differentiated to suit the stakeholder groups. Public hearing forum allows patient groups, civic groups, and laypeople to discuss and fine-tune issues or topics (e.g. who the target population is, what the nominated health technology is) to be nominated. External academics are invited to join in the hearing forum to provide technical inputs. This channel also encourages exchanges across health professional groups, which consists of vast number of members, royal colleges of physicians and medical associations, so conclusion can be reached prior to topic submission.



CASE STUDY: SCREENING AND PROVISION OF EYEGLASSESS FOR CHILDREN WITH REFRACTIVE ERRORS

TOPIC NOMINATION

In 2010, stakeholder groups in the UCBP process nominated 14 topics, including the topic 'LASIK for the correction of nearsightedness, farsightedness, and astigmatism' originated by the UCS benefits package manager NHSO. This topic was among those derived through public hearing forums. It should be highlighted that although this topic gained interest from policy maker, it still went through the standard process.

STEP 2 TOPIC PRIORITIZATION AND SELECTION

Topics and health technologies nominated to be included in the benefits package for each round are numerous, with the maximum number of 45 topics per round. With limited resources including time, budget, and personnel to provide services to the service users, Thailand needs to identify high priority topics which should be high on the list for inclusion consideration.

The nominated topics will go through prioritization and selection process overseen by the Topic Selection Working Group, which will consider and rule out some topics if:

1. It is about medicines, vaccines, or supplements. For medicines and vaccines, there are already other channels to manage these benefits, e.g. the development of National List of Essential Medicine process for pharmaceutical benefits.

2. There is no academic evidence on efficacy and effectiveness of the health technologies and interventions because benefits of the inteventions and technologies cannot be explicitly determined in an evidence-informed manner.

3. It has been previously considered and no additional information is identified which warrant revisiting previous decisions.

THE REMAINING TOPICS ARE SUBSEQUENTLY ASSIGNED TO ACADEMICS TO CONDUCT LITERATURE REVIEWS AND ARE SCORED AGAINST A SET OF PRIORITIZATION CRITERIA.

TOPICS THAT SCORES HIGH ARE CONSIDERED OF HIGH PRIORITY.

THERE ARE 6 PRIORITIZATION CRITERIA, AS FOLLOWS

1. **NUMBER OF PEOPLE AFFECTED BY THE DISEASE OR HEALTH PROBLEM**
   - Higher number leads to higher score

2. **SEVERITY OF THE DISEASE OR HEALTH PROBLEM**
   - Higher severity leads to higher score

3. **EFFECTIVENESS OF THE HEALTH TECHNOLOGY**
   - Better treatment or rehabilitation outcome leads to higher score

4. **VARIATION IN PRACTICE**
   - Higher variation across three main public insurance schems leads to higher score

5. **IMPACT ON HOUSEHOLD EXPENDITURE**
   - Higher impact on householed expenditure leads to higher score

6. **EQUITY, SOCIAL AND ETHICAL CONSIDERATION**
   - Higher impact on patient's income and smaller number of patients lead to higher score

Scores for each criterion range between 1 – 5 except for the fourth criteria, of which the possible scores are either 1, 3, or 5. The scores are based on information retrieved from literature review and are aggregated with equal weight across all criteria. The Working Group for Topic Selection then review the scoring results and consider additional information to select 10-12 topics to proceed further to next step.

CONSIDERATION AND DECISION MAKING ON TOPIC SELECTION

The Topic Selection Working Group considers the topics which score highest first. The working group may adjust the scope of topics so they are more suitable to proceed further as well as, based on their consideration, add some topics to the list of selected topics if they are not already of high priority.

CASE STUDY: SCREENING AND PROVISION OF EYEGLASSESS FOR CHILDREN WITH REFRACTIVE ERROR

TOPIC PRIORITIZATION FOR A TOPIC NOMINATION CYCLE IN 2010

In 2010, the Working Group for Topic Selection prioritized and selected 5 nominated topics to proceed further, as follows.

1. **Organ transplants: stem cell transplant for the treatment of severe thalassemia**
2. **Down syndrome screening using second trimester triple test in pregnant women**
3. **Pre-extensive drug resistant tuberculosis treatment**
4. **Mortality rate reduction of patients with sepsis using FloTrac, PreSep or PediaSat to monitor hemodynamics and blood oxygen level**
5. **Promotion of folate and iodine supplement management for women of repreductive age**

The Working Group presented scores and topic prioritization results to the Subcommitee for the Development of Benefits Package and Service Delivery. The result was approved except for the topic on down syndrome which had previously been incorporated in a Ministry of Public Health policy.

The Subcommitee also discuss other topics nominated in the same cycle, including the 'LASIK for the correction of nearsightedness, farsightedness, and astigmatism.' The Subcommittee deemed this topic important but requested an adjustment to the topic to focus on **'eyesight correction with eyeglasses,'** which is considered an existing benefits under UCS, but the access to the services was still limited, calling for an in-depth policy and service system analysis.

Therefore, in 2010, there were five topics selected for Step 3: Assessment. In addition to the eyesight screenings, other topics including stem cell transplant has now been included in the benefits package under UCS.

STEP 3 HEALTH TECHNOLOGY ASSESSMENT ON TOPICS AND/OR TECHNOLOGIES

A crucial step in this process which ensures that inclusion decisions are informed by academic evidence is the conduct of health technology assessment (HTA).

WHAT IS HTA?

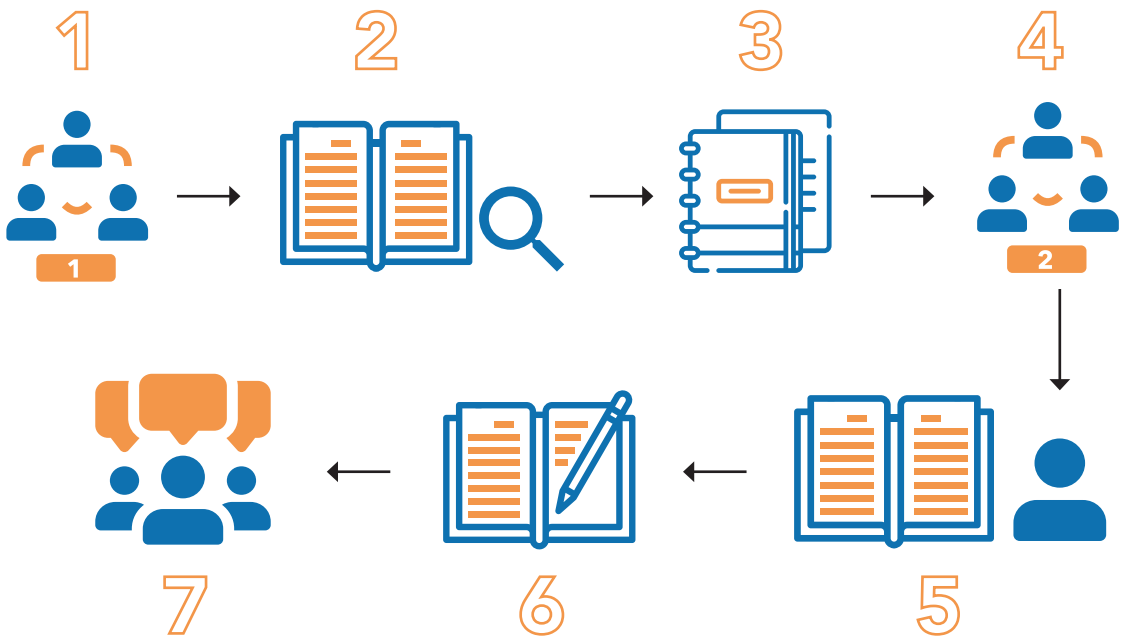
HTA is a systematic policy research which aims to inform policy making. It is a multidisciplinary process evaluating the impact of the use of health interventions and technologies in aspects including medicines, social science, economics, and ethics. Quality and reliable HTA evidence can enhance an efficient use of health system resources.

Examples of HTA study include economic evaluation or cost-effectiveness analysis, budget impact analysis, and feasibility study. These evidences are highly useful as an input for investment decision and for budget and operational planning for the implementation of funded interventions or technologies.

HTA is beneficial to the development of benefits package under UCS because it provides the outlook for economic and financial implications of policy makings and can enhance the sustainability of UCS in Thailand.

Selected topics will undergo an assessment by academics or researchers from non-profit organization, e.g. universities, IHPP, and HITAP. The HTA study on the health interventions or technologies specified in the topics are conducted with reference to the Thai HTA guidelines volumes 1 and 2.

Thai HTA process comprises 7 main steps, including stakeholder consultation meeting to determine the scope of the HTA study, review of relevant literature, assessment and report preparation, stakeholder consultation meeting to present preliminary result and discuss the feasibility of policy recommendations derived from the study, and presentation of assessment results to policy makers for inclusion decision. Researchers can publicize the assessment result for academic citation and reference.



1. Initial literature review and first stakeholder consultation meeting to determine the scope of the study
2. Proposal development and proposal review by external reviewers before the study starts
3. The conduct of the study
4. Second stakeholder consultation meeting to for researchers to present preliminary result
5. External review of study report
6. Finalisation of report and policy recommendations
7. Presentation of results to the Working Group for Health Economics

IT IS WORTH HIGHLIGHTING THAT THE HTA PROCESS IN THAILAND IS DESIGNED TO ENGAGE STAKEHOLDERS FOR THEIR INPUTS THROUGHOUT

from before the conduct of the study to before the finalization of the assessment result. These are to ensure research questions and results are relevant to Thai context and therefore is a crucial step.

Determining the scope of study shapes the whole assessment, including study design and approach, e.g. whether it should be economic evaluation or feasibility study, and services and technologies related to the selected topic that should be included in the assessment.

CASE STUDY: SCREENING AND PROVISION OF EYEGLASSESS FOR CHILDREN WITH REFRACTIVE ERROR

THE HTA RESEARCH

The topic 'eyesight correction with eyeglassess' was further shaped and defined in the step of determining the scope of HTA study.

As per standard practice, stakeholders were invited to provide inputs and determine the scope of the study in a consultation meeting. A conclusion was reached that the HTA study should focus on children as study population because correcting refractive errors at an early stage of life can prevent a permanent vision loss. Moreover, the study should also explore refractive error screening to identify children in need of eyeglasses.

Since this intervention is not likely to entail huge cost and budget burden if it is included in the benefits package, an important issue to consider is the feasibility to screening. With only a few hundreds pediatric ophthalmologists in Thailand, the human resource is too scarce to screen children's eyesight nationwide. Therefore, the development of a feasible screening system is required. The study 'Development of the system for screening of refractive errors and providing spectacles among pre-primary and primary school children in Thailand' aims to respond to the need. The study is conducted between 2011 and 2012 by researchers from Samut Prakan Hospital, Queen Sirikit National Institute of Child Health, and HITAP. Outcomes from the study are a system design for refractive error screening of school children by teachers and a tool and equipment to facilitate the screening. Refractive errors screening in pre-primary and primary school children by teachers is found to be feasible and the accuracy of the screening result is acceptable compared to standard practice.

STEP 4 DECISION MAKING

Researchers subsequently present the assessment results to the Subcommittee for the Development of Benefits Package and Service Delivery, which will deliberate and make recommendations on inclusion decision. The recommendations are then considered by Subcommitees and commitees under NHSO. The decision making step consists of initial and final decision makings.

Initial decision making involves the Subcommittee for the Development of Benefits Package and Service Delivery and the Subcommitee for the Determination of Operational Principle and Fund Management making initial decision whether the health service should be included in the benefits package.

The Subcommitee for the Development of Benefits Package and Service Delivery make decision taking account of following considerations.

- Cost-effectiveness: If the incremental cost per an additional quality-adjusted life year (QALY) for the health service is less than 160,000 THB (approximately 5,000 USD), it is considered cost-effective.
- Availability of clinical practice guidelines: There should be documented recommendations issued by the royal colleges of physicians or medical associations on how to provide care to patients with the conditions or diseases including treatment, health promotion activities, screenings, and diagnosis.
- System readiness: The system should be ready in terms of human resources, equipments for service provision, and service providers and networks or referral system.
- Budget impact on UCS: Changes in budget required to provide the benefits need to be considered. The incremental budget can be negative if the intervention is cost-saving,
- Ethical and social issues: Equity, feasibility, access to essential technologies and services, e.g. the impact of presence and absence of the technology in the benefits package, are also important factors to be considered.

Final decision: The National Health Security Board will make final decision and announce types and scope of health services included (either the inclusion of new benefits and/or the expansion of existing benefits) or the improvement in service management to increase accessibility for services under UCS.

However, for some special circumstances, the Cabinet is the final decision maker. This include the case of renal replacement therapy for patients with end-stage renal disease.

CASE STUDY: SCREENING AND PROVISION OF EYEGLASSESS FOR CHILDREN WITH REFRACTIVE ERROR

DECISION MAKING

Recognizing the recommendations, the Subcommittee percieves that more information is essential to consider the process of collaboration and the practicality in implementing this policy. Further information demonstrates that the refractive error screening model and correction with glassess is plausible, leading to the a national policy on this issued on 9 January 2016, a National Children's Day.

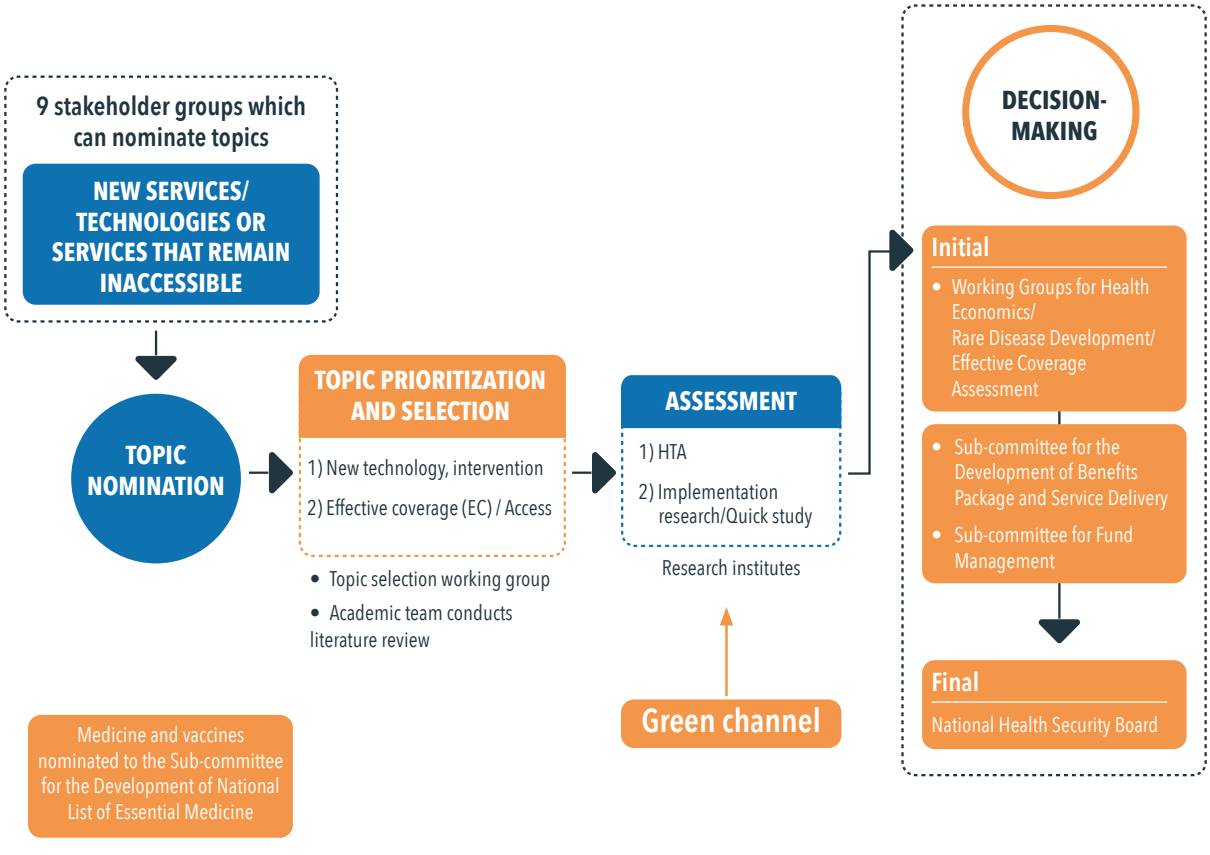
MANAGEMENT OF URGENT NEED FOR INCLUSION OF A NEW BENEFIT

Because topics can be nominated once annually, and HTA process takes time, NHSO opens the 'green channel' for urgent topic nomination in response to disease outbreak, emerging diseases, or other urgent, critical health issues. The green channel also allows new technologies with better effectiveness or lower cost to be included in the benefits in a shorter timeframe than the regular process.

Topics nominated through this channel will go through initial evaluation for its impact and necessity in quick studies which derive preliminary results within 6 months or shorter.

GREEN CHANNEL

SUMMARY
OF THE WHOLE PROCESS



HOW ARE STAKEHOLDERS

IDENTIFIED TO ENGAGE IN THE PROCESS?

Stakeholders play extremely crucial role in the process, from topic nomination to determining the scope of the HTA study which will lead to policy recommendations. Therefore, it is highly desirable to minimize conflict of interest among stakeholders who are engaged in the process.

Although an explicit process to identify stakeholders is not yet in place in the process for the development of benefits package, invitations to participate in any endeavors in the process are never addressed to individuals but to 'stakeholder group representatives.' This encourages deliberation among stakeholder groups to identify representatives they deem appropriate. For example, in the case of technology manufacturer group, invitation letters are sent to Thai Medical Device Technology Industry Association, of which members are manufacturers and importers of medical devices in Thailand. The Association will facilitate internally and nominate representatives from related companies to participate in the process.

ADDRESSING RARE DISEASES

IN BENEFITS PACKAGE UNDER UCS

For systematic consideration of benefits related to rare diseases, the Subcommitee for the Development of Benefits Package and Service Delivery appoints a Working Group on Rare Diseases in 2018. The Working Group is tasked with consideration and providing recommendations on services (both pharmaceutical and non-pharmaceutical) for rare disease management.

According to the Subcommittee, a disease is classified as a rare disease if:

- It is a disease with a few number of patients
- It is a chronic disease which may lead to disability or premature death
- High technology, expertise or cost are required for screening, diagnosis and/or treatment, which may be required lifelong.
- The disease management implies huge impact on the socioeconomics of patients, their family, and the society.

RULE OF RESCUE

Since there are small number of patients while health services or technologies for rare disease are usually high technologies, costs incurred per patients are likely to be high hence not cost-effetive. The inclusion decisions of benefits for rare diseases are therefore consider other criteria in addition to cost-effectiveness. If the economic evaluation shows that a service or technology is cost-ineffective, the 'rule of rescue' will be factored in and the rule of rescue can override other considerations when there are no other treatment alternatives, neither pharmaceutical nor non-pharmaceutical, and the technology can save lives.

WHAT ARE THE STRENGTHS
OF THIS PROCESS?

The strengths of this benefits package development process include:

1 The process is systematic with clear, explicit steps and timeline from topic nomination to decision making

2 The process is transparent and participatory, engaging stakeholders in the process to provide inputs and arrive at a consensus in every step. All documents involved in every step are publicized through channels and in different forms, including website content and books to ensure high level of transparency.

3 The process is evidence-informed. Topics selection is informed by reviews of published articles in local journals that are indexed in Thai Medical Index and international journals indexed in PubMed or documents issued by governments or research institutes. Moreover, the conduct of HTA must meet the standard and follow the Thai HTA guidelines, endorsed by the Subcommitee for the Development of National List of Essential Medicines and the Subcommitee for the Development of the Benefits Package and Service Delivery.

However, caveats are also identified. These include:

1 There are different levels of understandings in Thai health insurance system across different groups of stakeholder. Consequently, some nominated topics or health technologies can be unclear or not well defined, already in the benefits package under UCS, do not need further study, or already in the process.

2 Scarcity of human resource and organizations with capacity to assess nominated topics or health technologies results in limited number of selected topics to be studied for further inclusion consideration.

CAN HIGH-COST CARES BE INCLUDED IN THE BENEFITS PACKAGE?

THE CASE OF RENAL REPLACEMENT THERAPY

Among the inclusion decision, two criteria are about expenditure or cost, namely cost-effectiveness and budget impact. Does this mean high-cost health technologies or interventions, which are likely to be cost-ineffective and incur high budget impact, will not be included in the benefits package? This is a crucial question because these technologies or interventions put financial burden on households and may even push them under the poverty line.

Recoginzing the importance of this issue, economic consideration or HTA are not the deal breakers determining the inclusion decision but other dimensions are also taken into account. These oftentimes include feasibility in terms of social and ethical aspects. For instance, in the case of renal replacement therapy with peritoneal dialysis (PD) for patients with end-stage renal disease.

PERITONEAL DIALYSIS-FIRST POLICY

Every patient with end-stage renal disease need dialyses to prolong their lives unless they have undergone a renal transplant. However, dialysis is a high-cost service which can lead to catastrophic health expenditure in worse-off households if patients need to pay out-of-pocket. However, decision to include it in the benefits package is not easy to make because it entails enormous budget impact to the government.

However, in 2007, The Cabinet of Thailand announced the inclusion of 'PD-first policy' in the benefits package under UCS for patients with end-stage renal disease. The decision was made based on ethical concerns and is evidence-informed.

Peritoneal dialysis (PD) is a dialysis technique which employs the patient's abdominal tissue to filter wastes, fluids, and substances. Dialysate will be loaded into patient's abdominal cavity and stay for 4-6 hours before it is replaced. Most patients can perform PD themselves after trainings, allow them to get dialysis at home and can live a normal life.

Hemodialysis (HD) is a dialysis using a dialysis machine. Blood will flow out from patient's body, filtered by the machine to remove wastes, and returned into the body. It can only be performed at hospitals.

Benefits on renal replacement therapy is proposed for inclusion in the benefits package prior to the inception of the UCBP process while the inclusion consideration is managed by the Subcommitee for the Development of Benefits Package and Service Delivery. Realizing the importance of academic evidence, the Subcommitee assigned HITAP to study the cost-effectiveness of renal replacement therapy in Thailand.

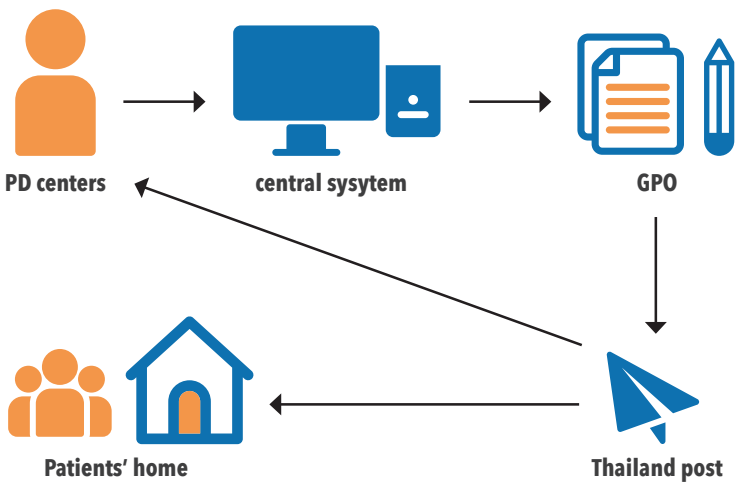
The economic evaluation by HITAP compares between providing PD as the first option before switching to HD if needed (PD-first policy), providing HD as the first option before switching to PD if needed (HD-first policy), and renal transplant in Thai context. The result shows that renal transplant is the most cost-effective option. However, due to limited kidney donors, Thailand can only perform 400 renal transplants a year while there are 40,000 patients awaiting the transplants, and dialysis plays crucial role in prolonging the life of patients with end-stage renal disease. NHSO therefore needs to consider the two dialysis options, where PD-first policy is more cost-effective and superior to HD in the following aspects.

- The frequency is close to natural cycle
- Patients can perform PD at home. This helps reduce patient's travel cost to hospital, machine investment cost for hospital, hospital crowdedness, and number of staff need for service provision
- PD incurs less cost and expenditures when compared to HD.

BEYOND ADDING A NEW BENEFIT

However, there are further issues to address in providing dialysis as a benefit. An advantage of PD is patients do not need to travel to hospital, but they still need to change dialysate regularly. An efffective system for dialysate delivery to patients is therefore needed.

PD-first policy implementation is made possible through collaborations between 3 organizations: NHSO, Government Pharmaceutical Organization (GPO) and Thailand Post Distribution Company Limited. Hospitals which act as PD centers will submit dialysate and medical supply requests to GPO which provides both the dialysate and supplies through the network under Thailand Post Distribution Company Limited which delivers and distributes them to PD centers and patient's home.



This is an example of designing benefits package and service delivery in Thailand. Apart from technologies or interventions being carefully selected for inclusion as a benefit, attentions are also required to create a system which will support effective and efficient implementation and provision of the included benefit.

HOW DOES THAILAND ENSURE NEWLY INCLUDED BENEFITS ARE USED?

In principle, the benefits package under UCS covers all health services that is not in the negative list. Therefore, exisitng benefits will not be excluded from the benefits pacakge even though the new benefits perform equally well or even better in terms of effectiveness, cost-effectiveness, feasibility, etc. Therefore, the management and mechanism of benefits package implementation need to ensure the provision of the newly included benefits for the greater good of the service users, service providers, and health system.

NHSO encourages this by integrating the newly included benefits as a part of clinical practice guidelines. However, if a large amount of budget or monitoring system are required in providing the health service or technology, NHSO will also establish separate funds or provide separate additional budget to ensure the provision. Examples of the funds are HIV/AIDS fund and renal replacement therapy fund.

HOW ARE PHARMACEUTICAL AND NON-PHARMACEUTICAL BENEFITS PACKAGE RELATED?

The development of the pharmaceutical benefits package, the National List of Essential Medicines, is overseen by another Subcommitee, the Subcommittee for the Development of National List of Essential Medicines under the Committee for the Development of National Drug System, with the Food and Drugs Administration (FDA) as the secretary. There are more than 20 working groups under the Subcommitee to gather academic evidence and provide recommendations to the Subcommitee.

Steps in the development of pharmaceutical benefits package are comparatively similar to the UCBP process. Medicines together with their indications will be nominated for inclusion consideration. A prioritization is then conducted to identify high-priority issues, which will undergo economic evaluation and budget impact analysis. Finally, the results are presented to the Subcommittee for the Development of National List of Essential Medicines for inclusion consideration.

However, in this process, eligible nominators of medicines are limited to physicians and health professionals who are members of the Expert Working Groups, e.g. Expert Working Group on Cardiovascular System, Expert Working Group on Musculoskeletal and Joint Disease. Moreover, an existing medicines will be excluded once a new medicines which can replace them is included.

Pharmaceutical and non-pharmaceutical benefits package development processes happen in parallel with regular communication between the processes to ensure comprehensive management of disease is offered to the beneficiaries.

DEVELOPMENT OF PHARMACEUTICAL AND NON-PHARMACEUTICAL BENEFITS PACKAGE

THE CASE OF HEPATITIS C INFECTION

Hepatitis C infection is a liver infection caused by hepatitis C virus (HCV) of various genotypes, including genotypes 1, 2, 3 and 6. It is prevalent in patients with HIV/AIDS infection (7.19 - 7.8% prevalence) and transmits through contact of blood or other secretions containing the virus. A chronic infection can cause liver fibrosis, which may progress to liver cirrhosis and cancer, leading to death.

However, patients with the infection usually do not manifest any symptoms until the disease is at an advanced stage. Screening for anti-HCV is therefore needed for timely management. Standard treatments was a combination of interferon or pegylated-interferon and ribavirin, but nowadays, there is a new, highly-effective medicine group, direct-acting antiretrovirals, e.g. sofosbuvir and ledipasvir. Effectiveness of each medicines in this group varies against different genotypes.

Both pharmaceutical and non-pharmaceutical benefits package has been continuously developed to ensure most effective and efficient management of hepatitis C infection.

Year	Anti-HCV screening	Pegylated interferon+ribavirin	Sofosbuvir-base regimen
2013	HTA shows anti-HCV screening is cost-effective in patients with HIV/HCV co-infection	HTA shows pegylated-interferon in combination with ribavirin is cost-effective for treatment in patients with HIV/HCV co-infection	
2014		HTA shows pegylated-interferon in combination with ribavirin is cost-effective for treatment in patients with genotype 1 and 6 HCV infection	
2015			HTA shows sofosbuvir-based regimen is more cost-effective than pegylated-interferon in combination with ribavirin for treatment in patients with every genotypes hepatitis C infection
2018	HTA shows anti-HCV screening in patients with HIV/HCV co-infection and people who inject drugs is included in the benefits package		
2019	HTA shows the use of sofosbuvir in combination with pegylated-interferon and ribavirin is most cost-effective in patients with genotype 3 hepatitis C infection and the use of sofosbuvir in combination with ledipasvir is the most cost-effective in other genotypes. Screening is needed in all the treatment options.		

HOW IS ANNUAL BUDGET FOR BENEFITS PACKAGE PROVISION UNDER UCS DETERMINED?

Each year, budget proposal is submitted and presented systematically. Subcommittees under NHSO will propose budget plans to the National Health Security Board. The budget plan will then be considered by the Budget Bureau and the Cabinet for approval.

The government budget allocated is the 'National Health Security Fund' comprising capitation budget, budget for other services in addition to the capitation budget, and other ad-hoc additional budget. The amount are for the promotion and support of service provision of service providers to ensure access to necessary and efficient health services.

CAPITATION BUDGET

In fiscal year 2013, the first year the National Health Security Fund is established, the capitation rate is 1,202.40 Baht/beneficiary/year. The rate is regularly increased to respond to the inclusions of new service every year. The current capitation rate (fiscal year 2020) is 3,600 Baht/beneficiary/year. The amount triples the original rate, totalling 173,750 million Bahts for approximately 48.3 million beneficiaries.

WHAT SERVICES DO CAPITATION BUDGET COVER?

The budget covers outpatient and inpatient care, special services, health promotion and disease prevention services, medical rehabilitation services, traditional medicine services, medical services reimbursed as investment budget, and initial support budget.

Moreover, the government allocates separate budgets to NHSO to provide care to specific populations, including patients with HIV/AIDS, end-stage renal disease, and chronic diseases; those in remote/dangerous areas, and dependent elderly; and to address health issues during a specific period.

DO'S AND DON'TS IN BENEFITS PACKAGE DEVELOPMENT:
LESSONS FROM THAI EXPERIENCE

Do's

1. Create systematic mechanism and process with good governance
2. Engage relevant stakeholders in some steps in the process
3. Determine explicit criteria to enhance accountability in every step
4. Ensure adequate and sustainable public resources to support the mechanism and process
5. Ensure adequate invesment in responsible organization, including quality human resources
6. Distribute responsibility on the conduct of HTA to organizations with appropriate qualifications and commitment
7. Use HTA to negitoate price and link to financial support, procurement, and monitoring and evaluation of UCS

Don't s

1. Develop complicated benefits package since the initial stage of health insurance system development, which may hinder implementation
2. Leave the description of the benefits implicit or vague. General description, e.g. 'maternal and child health' or 'cancer treatment' may lead to difference in interpretation of the benefits and variation in service provided across health facilities
3. Allow those with clear conflicts of interest to participate in the process
4. Allow the conduct of HTA and decision making to be centralized in a single individual or group

STRATEGIES FOR ESSENTIAL BENEFITS PACKAGE UNDER UCS 2017-2021

In 2017, the Strategies for Essential Benefits Package under UCS 2017 - 2021, comprising 4 strategies and 9 tactics.

During the period, the development of benefits package follows 4 missions:

1) Compile and assess the need for benefits in health services, medicines and medical supplies, and vaccines in UCS
2) Develop and promote the inclusion of new benefits which are appropriate and increase access to the existing benefits
3) Monitor and evaluate the outcome of the operation so people can access to benefits package under UCS
4) Contribute to harmonization of benefits package under the 3 public health insurance scheme

Strategy 1: Expand essential benefits package	Strategy 2: Access to quality	Strategy 3: Harmony 3 schemes	Strategy 4: Extreme M&E
Tactics: 1. Develop evidence-informed and participatory mechanism to study benefits package 2. Support knowledge creation on disease prevention and comprehensive healthcare	**Tactics:** 3. Identify high-priority service groups of which its effective coverage needs expansion 4. Determine clear indicators 5. Determine measures to achieve the goals	**Tactics:** 6. Collaboration across 3 public health insurance schemes to develop benefits packages and management systems that are complementary for harmony	**Tactics:** 7. Identify goal of the benefits package (effective coverage) 8. Create database which can respond to the goal 9. Active communication
Goal: Increase access to essential health services that are not in the benefits package	**Goal:** Increase access to services under UCS	**Goal:** Harmonize the benefits packages under the 3 schemes	**Goal:** Achieve implementation of benefits included

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ADVISOR

Suwit WIBULPOLPRASERT
Viroj TANGCHAROENSATHIEN
Walaiporn PATCHARANARUMOL
Prasobsri UNGTHAVORN
Vichai CHOKEVIVAT
Phusit PRAKONGSAI

SUPERVISOR

Sripen TANTIVESS
Yot TEERAWATTANANON

RESEARCHER

Wanrudee ISARANUWATCHAI
Danai CHINNACOM
Akanittha POONCHAI
Chonticha CHANJAM
Saudamini Vishwanath DABAK
Rachel ARCHER
Chanida EKAKKARARUNGROJ

EDITORIAL TEAM

Benjarin SANTATIWONGCHAI
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