The ‘universal health coverage (UHC) cube’ conceived by the World Health Organization (WHO) identifies three key policy questions for public healthcare provision to achieve universal health coverage: what healthcare services should be covered (the depth)?; should the whole population be covered or only certain groups (the breadth)?; and what proportion of the total cost should be covered under UHC (the length)? (See Figure 1 below) The UHC cube concept recognizes that there is a finite public budget and a balance between the three dimensions must be struck. A well-defined benefits package is central to addressing these questions, outlining what healthcare services are covered, for whom, and with what degree of financial coverage.

A health benefit package may first focus on key priorities such as providing cost-effective primary care services, including health promotion and disease prevention interventions, and providing life-saving or high-impact health services to all patients who need them. High impact interventions may be provided at little or no cost to the user to ensure access for all. The package may be expanded to cover additional services once more financial resources become available.

Technologies comprise around 50% of healthcare budgets in low and middle-income countries and there are an increasing number of high-cost technologies available in the market that may or may not be cost-effective. Public financing of cost-ineffective technologies reduces resources available for provision of cost-effective health interventions. Maximized health can be ensured by a clear and carefully developed benefit package that excludes cost-ineffective treatment options in order to provide governments with good value for money.

As technologies advance, previously cost-effective interventions may be overtaken by better treatment options. For this reason, benefit packages must be consistently reviewed to ensure financial sustainability and provide the greatest level of healthcare, at the lowest cost. A systematic, transparent and participatory process for defining a health benefit package helps policy makers to make appropriate decisions and ensure accountability of decisions. Implementing these principles leads to a package that is fair and efficient and allows stakeholders to accept the legitimacy of a package even when it does not satisfy their personal priorities.

Figure 1: Universal Health Coverage Cube (Source: World Health Organization)
Until 2002, there were several public health insurance schemes in Thailand: the Civil Servant Medical Benefit Scheme (CSMBS), the Social Security Scheme (SSS) for formal employees, the Social Welfare Scheme which covered the poor, near poor, children, elderly and other deserving groups and the Voluntary Health Card scheme which subsidized low income households. These schemes covered about 70% of the population, half of which were covered by the Social Welfare Scheme. CSMBS offered the most generous benefit package, while the other schemes provided limited packages.

In April 2001, the government committed to expanding health coverage to 100% of the population and consequently, full-coverage was achieved on 1st January 2002. Full-population coverage was attained by using general taxation to expand the Social Welfare Scheme and cover the rest of the population. The initial benefit package for the new scheme, named the ‘gold-card’ scheme, was based on the Social Welfare Scheme benefit package and drugs list, but excluded high cost interventions such as cancer treatment, anti-retroviral treatment, organ transplant, coronary bypass surgery, as well as cosmetic care.

In 2002, the National Health Security Office (NHSO) was established as the management agency for the ‘gold card’ scheme and the Board, chaired by the Minister of Public Health, established a Subcommittee for the Development of the Benefit Package and Service Delivery (SCBP). The SCBP comprises stakeholder groups such as patient groups, civil society organizations, providers, relevant government agencies, and subject experts.

Initially, the SCBP considered proposals for inclusion of interventions into the benefit package from multiple groups in an ad-hoc manner, with no explicit criteria for adopting interventions. This system was inadequate as only elite groups with access to the secretariat could effectively present proposals and this process resulted in policies that did not represent the broader public interest. There was also significant variation in the quality of evidence presented to the Subcommittee.

In October 2003, the government introduced anti-retroviral treatment into the benefit package without any formal assessment. This policy put pressure on the NHSO to include other high cost interventions in the benefit package. One proposal called for the inclusion of Renal Replacement Therapy for End Stage Renal Disease (ESRD). Realizing that including expensive treatments without careful assessment would be financially unsustainable, the NHSO, which purchases health services, and the Ministry of Public Health (MoPH), which provides health services, commissioned a range of research projects that included a needs assessment, service readiness study, economic evaluation and budget impact assessment. These was completed in 2006 and treatment of ESRD became the first intervention in Thailand to be rigorously assessed before being included in the benefit package in 2008. This event paved the way for the establishment of systematic decision-making processes for health benefit package decisions in Thailand.

In 2009, the SCBP requested two academic bodies, the International Health Policy Program (IHPP) and the Health Intervention and Technology Assessment Program (HITAP), to develop rigorous mechanisms and processes for using evidence to inform decisions for the non-pharmaceutical benefits package of the Universal Coverage Scheme (UCS). The mechanisms and processes for the non-pharmaceutical benefits package are as follows (See Figure 2 below):

Seven groups of stakeholders nominate interventions for inclusion in the benefits package: health professionals, patients, policy-makers, academics, civil-society, industry and lay-people. Proposals can include up to three topics, one of which must focus on health promotion or disease prevention.

Topics are prioritized by a ‘selection working-group’ based on six criteria which are: burden of disease, severity of the health problem, effectiveness of intervention, variation in current practice, financial impact of the disease on households and equity and ethical dimensions including whether the disease is rare or disproportionally affects the poor. This working-group is a subset of stakeholders eligible to nominate topics and excludes industry and policy-makers to mitigate conflicts of interests. The short-listed topics are then presented to a Health Economics Working Group, which is responsible for overseeing the HTA evidence generated, before being reviewed by the Subcommittee.
Similar processes exist for decisions made by the NLEM subcommittee regarding public provision of pharmaceuticals, including requirements that HTAs are conducted for all high-cost medicines before their inclusion in the medicines list. HTAs requested by both NHSO and NLEM subcommittee must be comprehensive, comparing across pharmaceutical and non-pharmaceutical treatment options in line with the national guidelines.

HTAs do not simply lead to the acceptance or rejection of an intervention from the health benefit package or the NLEM but can inform the method and conditions of service provision to yield good value for money for the government. For instance, manufacturers may submit price quotations to be used in HTA research. If the HTA finds that cost per QALY is above the cost-effective threshold or that the intervention has a high budget impact, then a process of price negotiation ensues to reach a price that is acceptable. When imiglucerase was not found to be cost-effective for the treatment of Type 1 Gaucher disease albeit with low budget-impact, the NLEM used the results from the HTA study to develop a cost-sharing model which allowed Imiglucerase to be included in the NLEM. Under the arrangement agreed, the government pays for the treatment of a certain number of patients, beyond which treatment costs are borne by industry.

The final list of priority topics, usually less than 10, will undergo a full Health Technology Assessment (HTA) through which information on the cost-effectiveness and budget impact are derived. The incremental cost-effectiveness ratio (ICER) of the interventions is compared with the threshold value per QALY gained. HTAs are conducted by independent research organizations including universities. IHPP and HITAP are jointly responsible for less than one-third of the proposals. The funding for most of the HTAs comes from the publicly-funded Health Systems Research Institute (HSRI).
Do’s and Don’ts when defining a health benefits package:

**Do’s**
- Establish clear mechanisms and systematic processes, with ‘good governance’.
- Involve relevant stakeholders in all stages of the processes.
- Formulate clear and concrete decision criteria to increase accountability at every step.
- Ensure sufficient, and sustainable public resources to support the mechanisms and processes.
- Ensure adequate investment in a committed and accountable secretariat and high-quality technical team.
- Distribute responsibility for HTA research among qualified and committed independent institutes.
- Use the results of the HTA for price negotiation and link to the financial support, procurement, and M&E aspects of the UHC system.

**Don’ts**
- Develop a comprehensive or complicated health benefit package at the introduction of UHC rather, start with a simple and cost-effective package to ensure feasibility.
- Provide only vague descriptions of the package. General descriptions, such as ‘maternal and child health services’ or ‘cancer treatments’ leads to variations in package interpretation and differences in care provided across health facilities.
- Let anyone with clear conflict of interest be involved in the process.
- Allow HTA research and decision making to be conducted by single persons or single group of people.

### References


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