Health Intervention and Technology Assessment Program

Priority-setting and health technology assessment to support universal health coverage in Thailand

Workshop: Roadmap for priority-setting and health technology assessment in India
10th October 2014

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Context

- Population: 67 millions
- Universal health insurance coverage established in 2002
- Health expenditure: 5% of GDP (Public 70%)
- Increased demand for covering high-cost health interventions

Three public health insurance schemes

	Civil Servants Medical Benefit Scheme (CSMBS)	Social Security Scheme (SSS)	Universal Coverage Scheme (UC)
Start	1963	1990	2002
Eligible	Government employees, pensioners and their dependants	Formal-sector private employees	The rest of population who are not covered by SSS and CSMBS
Coverage	8%	16%	76%
Source of finance	General tax	Tripartite from employer, employee, government	General tax

Health Intervention and Technology Assessment Program (HITAP)

HITAP's role: Producing health technology assessment (HTA) studies for advising the benefits package development for UHC, including applying health economic evaluation for medical devices, vaccines, and public health interventions

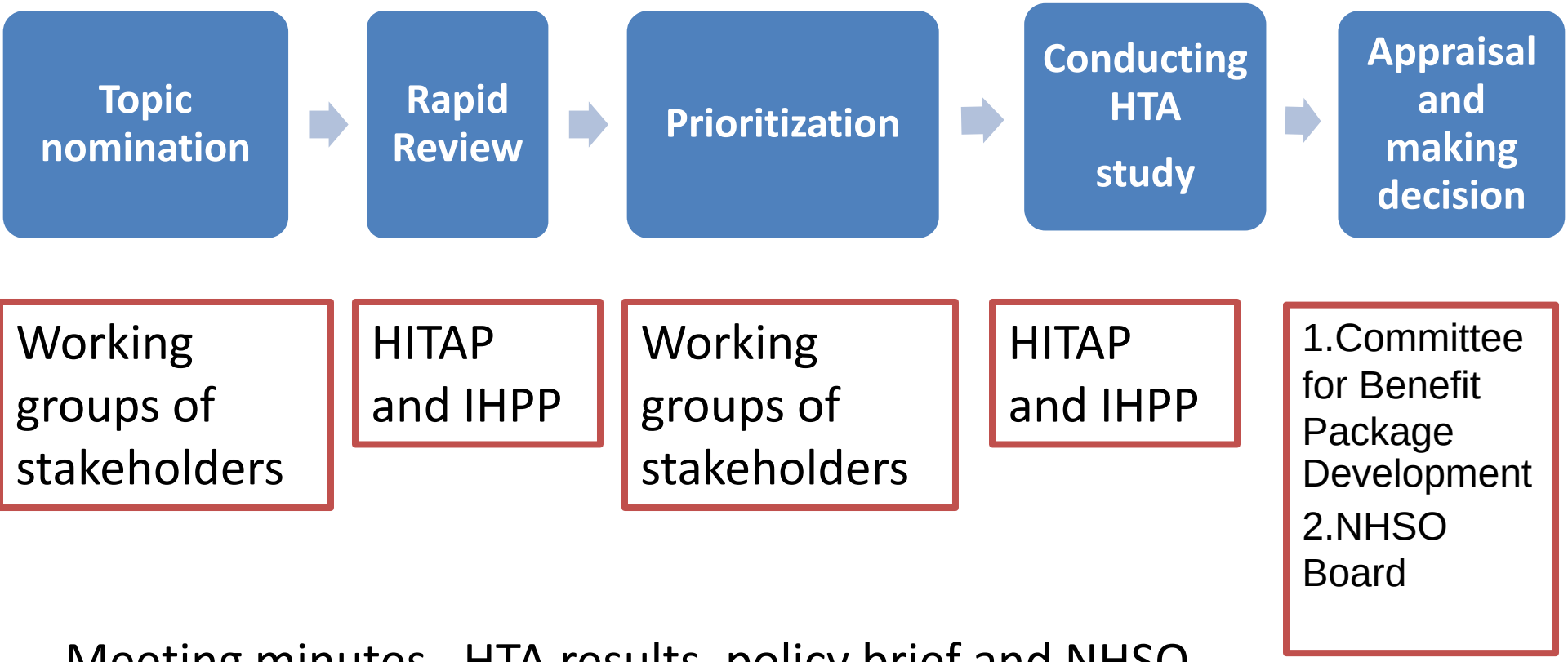
How can HTA support universal health coverage in Thailand?

Use of HTA in coverage decisions

- **Universal Health Coverage plan**
  - UHC manager: National Health Security Office (NHSO)
  - Interventions: Health promotion, prevention, diagnosis, treatment and rehabilitation
  - Setting up a program for development of UHC benefit package in 2009: IHPP & **HITAP**
  - 10 topics/year
- **National List of Essential Medicines (NLEM)**
  - National pharmaceutical benefit package—a reimbursement list of all three scheme
  - Executive Committee, with support from technical working groups
  - Health Economics Working Group: **HITAP** (Secretariat, researchers)
  - HITAP assesses 5 topics/year

Universal Health Coverage plan

Benefit package development process



Meeting minutes , HTA results, policy brief and NHSO decisions will be put on www.ucbp.net

Nomination → Review → Prioritization

Working group on health topic nomination

- Policy makers
- Health professionals
- Academic
- Patient groups
- Civic society
- Industry
- Lay people

HITAP and IHPP researchers

Working group on health topic selection

- Health professionals
- Academic
- Patient groups
- Civic society

Criteria:

a) Magnitude of problems
b) Severity of problems
c) Effectiveness of interventions
d) Variation in practice
e) Financial impact on households
f) Equity & ethical dimension

Scoring for prioritization

Topic no.	Magnitude of problems	Severity of problems	Effectiveness	Variation in practice	Financial impact on households	Equity & ethical dimension	Total score
1	5	2	5	4	1	3	20
2	5	5	4-5	2	1	1	18-19
3	5	1-4	4	2	1	1	14-17
4	3	2-5	4	1	1	1	12-15
5	5	2	1	2	1	1	12
6	1	4	2	2	5	4	18
7	1	5	4	2	5	2	19
8	5	1-3	5	2	1-2	3	17-20
9	2	4	4	1	4	3	18

Prioritization

Scoring for topic selection

Topic no.	Magnitude of problems	Severity of problems	Effectiveness	Variation in practice	Financial impact on households	Equity & ethical dimension	Total score
1	5	2	5	4	1	3	20
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4	3	2-5	4	1	1	1	12-15
5	5	2	1	2	1	1	12
6	1	4	2	2	5	4	18
7	1	5	4	2	5	2	19
8	5	1-3	5	2	1-2	3	17-20
9	2	4	4	1	4	3	18

5 Topics for conducting HTA studies

Using economic evaluation for UHC benefit package development

Health Interventions	Comparators	Baht/QALY (2009)	Coverage decisions
AZT+3TC+LPV/r for PMTCT	AZT plus single dose NVP	cost-saving	Yes
Provider-initiated HIV testing	Voluntary HIV counseling-testing	70,000	Yes
statin in pop ≥30% CVD risk	exercise & diet control	82,000	Yes
Bone marrow transplantation for thalassemia	Blood transfusion	120,000	Yes
Pioglitazone for diabetes	Rosiglitazone	211,000	No
HPV vaccine for girls aged 15 years	Pap smear q 5 years aged 35-60	247,000	No
Alendronate or Residronate for osteoporosis	calcium + vitamin D	2-400 ,000	No
Cochlear implantation for profoundly deaf	training hand language	400,000	No
Fordable lens for cataract	Rigid intraoccular lens	507,000	No
Atorvastatin in pop ≥30% CVD risk	exercise & diet control	600,000	No
Peritoneal dialysis for ESRD	palliative care	435,000	Yes
Hemodialysis for ESRD	palliative care	449,000	Yes
Erythropoitin for anemia in cancer	blood transfusion	2,700,000	No

HTA studies on health promotion and prevention – examples of 'Yes' decisions

- Health checkup
- Cost-utility analysis of smoking cessation
- Cost-benefit analysis of prenatal screening and diagnosis for down syndrome in Thailand
- A refractive error screening program conducted by school teachers in pre-primary and primary schools in Thailand – a feasibility study

Role of HTA on the development of essential medicine list

The development of the National List of Essential Medicines

Criteria for decision making

20 Working Groups for the NLEM selection (Specialists)
Reviewing and generating evidence for ISafE score and EMCI

The Working Group for coordination & consolidation of the NLEM
Gathering information and make recommendation to the Subcommittee

The Subcommittee for the development of the NLEM
Setting criteria for drug selection and prioritizing the list of medicines
needed economic evaluation studies

6 weeks

6 weeks

Sustaining for the next round

Top priority list of medicines

Low priority list of medicines

The Health Economic Working Group
Inform non-profit organization to conduct an economic evaluation study

Nominators reject to conduct a study

The Health Economic Working Group
Inform drug nominators to conduct an economic evaluation study

6 weeks

20 weeks

Non-profit organization
Conducting study based on the Thai HTA guideline and the process guideline

Drug nominators
Conducting study based on the Thai HTA guideline and the process guideline

6 weeks

Revise studies

Re-conducting study

The Health Economic Working Group
Assessing quality of the studies

6 weeks

Revise studies

Re-conducting study

4 weeks

The Health Economic Working Group
Considering economic evaluation studies and make recommendations to the Subcommittee

4 weeks

The Subcommittee for the development of the NLEM

- Safety
- Efficacy
- High cost
- High budget impact
- Disease burden
- Life threatening
- Cost-effective
- Budget impact
- System capacity
- Equity issue
- Ethical issue
- Political issue

Using economic evaluation for the NLEM in Thailand

Medications under consideration	ICER (Baht/QALY)	Coverage decisions	Year
Peg-interferon alpha 2b plus ribavirin for treatment of chronic hepatitis C subtype 2, 3	cost-saving	Yes	2011
Peg-interferon alpha 2a plus ribavirin for treatment of chronic hepatitis C subtype 2, 3	cost-saving	Yes	2011
Lamivudine or tenofovir for treatment of chronic hepatitis B	cost-saving	Yes	2011
Simvastatin for primary prevention of cardiovascular disease	82,000	Yes	2007
Oxaliplatin (FOLFOX) for treatment of advance colorectal cancer	126,000	Yes	2012
Galantamine for treatment of mild-to-moderate Alzheimer's disease	157,000	No	2010
Donepezil and rivastigmine for treatment of mild-to-moderate Alzheimer's disease	180,000 - 240,000	No	2010
Osteoporosis drugs (alendronate, risedronate, raloxifene) for primary and secondary prevention of osteoporotic fractures	300,000 - 800,000	No	2007
Imiglucerase for treatment of Gaucher disease type 1	6,300,000	Yes	2012
Atorvastatin, fluvastatin and pravastatin for primary prevention of cardiovascular disease	negative dominant	No	2007
Recombinant human Erythropoietin (rHuEPO) treatment in chemotherapy-induced anemia	negative dominant	No	2008
Adefovir, entecavir, telbivudine and peg-interferon alpha 2a for treatment of chronic hepatitis B	negative dominant	No	2011

Not just about listing…Pricing negotiation & identifying alternatives

Health technology	Original price (Baht)	Negotiated price (Baht)	Potential saving (per annual)
Tenofovir	43	12	375 million
Peg-2a 180 mcg	9,241	3,150	600 million
Angiogenesis inhibitor	40,000 (Ranibizumab)	1,000 (Bevacizumab)	1,600 million

Discussions

- HTA has been employed for informing coverage decisions in Thailand
- HTA process should be systematic, participatory and transparent.
- Crucial needs for political will and commitment
- It may take sometime to build up local capacity and infrastructure for using HTA

“ HTA is introduced worldwide and being used in many countries. Therefore, there is no reason Thailand doesn’t use it”

Senior decision maker, Thai MoPH

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