

NEWSLETTER TO STRENGTHEN COLLABORATION AMONG HTA AGENCIES IN ASIA



Welcome all of you to the 7<sup>th</sup> issue of HTAsiaLink newsletter. This issue comes just before the beginning of our 4<sup>th</sup> annual conference which will take place in Taipei, Taiwan in May 2015. The conference will focus on sharing experiences of HTA for Universal Health Coverage (UHC) in Asia. To align with our annual conference theme, this issue is also highlighted in "When Health for all is not all for health: Asian HTA movement to support UHC". Although many Asian countries have been working on HTA for a while, the formal resolution from WHA was launched in 2014, uraina state members to develop HTA systems to support the UHC and policy decision making process. In this issue, we bring you updates on the progress of HTA development in Asian. Seven countries have been collaborating together for an APO working paper titled, "Conducive Factors to HTA Development in Asia," which has been summarized for you on page 2. However, the APO working paper is still in progress. Moreover, for those who are keen on more in-depth research information, flip to page 6 for a

review of an economic evaluation reference case – sometimes known as the Gate's reference case. This article will show you what makes a good economic evaluation. As an added bonus there is a special interview with Prof. Tony Culyer on the role of universities in HTA capacity building (see page 9). Last but not least, our Singapore colleagues have shared their HTA activities through "HTA for Happiness: MOH Bhutan visits Singapore." Hope you enjoy this newsletter!



# When Health for all is not all for health: Asian HTA movement to support UHC



he Universal Health Coverage (UHC) is now high on the global agenda as it's widely accepted that accessing healthcare should be a right, not a privilege<sup>1</sup>. However, providing 'healthcare for all' needs an efficient health system that can guarantee accessibility to good quality services, medicines and technologies. Under the 'health for all' scheme, it is impossible to provide all health technologies for everyone. For that reason, decisions on what to provide, how to provide, and to whom to provide, need to be made at every level.

### Better evidence, better decision

Absence of a rational mechanism to support decision making for UHC can result in an inefficient and inequitable health care system which is opposite to the goal of the UHC. Therefore, it is important to have comprehensive and reliable evidences for making coverage decisions in order to prevent the benefit package from becoming too broad, not well defined and even unreasonable.

In Asia, the HTA concept has been recently introduced to support policy decision making. HTA is an assessment approach that includes several factors such as safety, cost-effectiveness, ethical and social effect of the new technologies. In this article, we bring together experiences from Asian countries on their HTA development to support the UHC. Information in this article has been derived from the Asia Pacific Observatory (APO) policy brief on Conducive Factors to HTA Development in Asia<sup>2</sup>.

<sup>1</sup> Julio Frenk -Harvard School of Public Health stated that Health care is not a commodity or privilege, but a human right

<sup>2</sup> Please note that this APO policy brief on Conducive Factors to HTA Development in Asia is in progress. Permission for citation is needed from the authors.

## Background of Asian countries' health system

From the 7 countries in the APO study, 4 countries including Malaysia, Korea, Taiwan and Thailand already provide UHC to their citizens. Indonesia, China and Vietnam are currently in the implementation process and are expected to have fully implemented their UHC by 2020.

It can be seen from the bar chart, that Taiwan, Korea, and Vietnam have the highest total health expenditure as a percentage of the GDP. However, if we look more closely into the government health budget, we can see that Thailand has the highest government health budget as a percentage of the total government budget followed by Korea and China.



Dr.Yot Teerawattananon (Health Intervention and Technology Assessment Program, Thailand)



budget of other ministries such as education, and agriculture. Once a budget has been spent, it cannot be spent again on something else. To address this issue, HTA has been introduced in order to allocate the government's health budget as effectively as possible. HTA supports policy makers in decision making regarding the price that the country should pay for the health of its citizens.

Increasing the government health budget has a negative impact on the

Dr. Jasmine R. F. Pwu (Center for Drug Evaluation, Taiwan)



Introducing HTA can be done before or after the introduction of the UHC. However, both options have advantages and disadvantages. The time line above shows which countries introduced their HTA system before the UHC and which countries introduced their HTA system after the UHC. Countries that established their UHC before their HTA institute are Korea, Malaysia, Taiwan and Thailand. One of their major challenges is the difficulty of removing existing cost ineffective health interventions from the benefit package or changing the current practice for which HTA has proven to be cost in-effective. Attempts in removing these health interventions or changing the practice can be met by resistance from stakeholders. It is therefore important to involve all relevant stakeholders in the HTA process so that they can understand the HTA process and outcomes. Currently, none of the HTA institutes in Asia have formally conducted HTA for disinvestment of the benefit package. However, there were some ad-hoc assessment projects that aimed to change the reimbursement system such as NECA's assessment on the use of Glucosamine for osteoporosis after this treatment was proven to be cost ineffective.

Countries that established HTA before the UHC may face the challenge of implementing the HTA results into real practice. This is due to the lack of a framework and mechanisms for using HTA in the decision making process. For instance, economic evaluations were conducted on two vaccines – Human Papillomavirus (HPV) and Pneumococcal Conjugate Vaccine (PCV) for the Philippines' health system. It was found that HPV and PCV were cost-effective enough to be put into the national health program. However, both vaccines have not yet been included in the National Vaccination Program due to its budget and resource constraints. The PCV vaccine is currently being provided in a few areas whereas the HPV vaccination is still under a pilot study.



Dr.Asrul Akmal Shafie (Universiti Sains Malaysia) [Left]

Dr.Jeonghoon Ahn (National Evidence-Based Healthcare Collaborating Agency, Korea) [Right]





**Dr. Joong Hye** (China National Health Development Research Center)

As each country has different social contexts and health systems, setting up an HTA institute will vary from country to country. However, by looking more closely at the development of an HTA institute, shared factors that contributed to the establishment of an HTA agency can be found. These factors are human resource development, core team/ HTA institute, linking HTA to policy decision making mechanisms, HTA legislation and international collaborations. The table below shows that Korea and Taiwan have the basic components of an HTA system.

Basic components of HTA systems <sup>3</sup>	China	Indonesia	Korea	Malaysia	Taiwan	Thailand	Vietnam
Human resource development	-	-	•	٠	•	•	-
Core team of HTA institutes	•	-	•	-	•	•	-
Linking HTA to policy decision making mechanisms	•	-	•	•	•	•	-
HTA legislation	-	•	•	-	٠	-	-
International collaboration	•	•	•	•	•	•	•

3 Please note that this APO policy brief on Conducive Factors to HTA Development in Asia is in progress. Permission for citation is needed from the authors.



**Dr. Nguyen Khanh Phuong** (Health Strategy and Policy Institute, Vietnam)

For **Taiwan**, the HTA division under the Center for Drug Evaluation (CDE) was officially established in 2008 with the responsibility to assess drugs for the Taiwan National Health Insurance (NHI). The assessment covers a wide range of aspects including, comparative effectiveness, cost-effectiveness, and budget impact as well as ethical, legal and social issues. In 2013, the NHI Act on establishing the National Institute of Health Technology Assessment (NIHTA) was launched with the aim to set up a national HTA agency that was nonprofit and independent from the government and manufacturers. This new institute will focus on the assessment of drugs, medical devices and public health programs.

Dr. Jasmine R. F. Pwu – the director of the Division of Health Technology Assessment, Center for Drug Evaluation – reflected on Taiwan's experiences concerning its HTA development. Although Taiwan has all the basic components of a successful HTA institute, further improvement is still needed in terms of human capacity building, developing an HTA national system that fits best with Taiwan's context as well as expanding the HTA scope to public health interventions and long-term care insurance decision support.

In **Thailand**, the Health Intervention and Technology Assessment Program (HITAP) was formally established in 2007 without an HTA legislation. Nevertheless, soft power was used to encourage policy makers to make HTA a part of the policy decision making process. HITAP's HTA studies were directed to 3 main policy channels, including the development of UHC benefit package, the development of the National List of Essential Medicine and the development of disease prevention and health promotion program. As the world's largest economy and highest population number, **China** expects to have UHC by 2020. However, without a cost containment approach, people were pushed for more out of pocket payment with higher cost and irrational use of technology. Currently, China has 5 HTA units, 4 of them are university based, only the Center for Health Policy Evaluation and Technology Assessment (CHPETA) has a close link with decision makers. Many of CHPETA's studies were used in policy decision making, including one project evaluating the da Vinci surgical system. Considering the development of HTA, there are concerns about whether central level HTA is appropriate in China or whether each provincial government should have its own HTA unit.

Other countries such as Indonesia and Vietnam, where HTA has been developed recently, are now conducting their first HTA studies, which are expected to be used by policy decision makers in the future.

Vietnam recently joined the HTAsiaLink in 2014. The trigger point for the need of HTA to support UHC in Vietnam is similar to other countries which are the increase in non-communicable diseases and the healthcare expenditure escalation. The Vietnamese government is committed to achieve the UHC by 2020. Therefore, the benefit package needs to be revised in terms of cost-effectiveness in order to have a sustainable insurance fund.

Dr. Nguyen Khanh Phuong – the director of Health Strategy and Policy Institute (HSPI) said that there are several challenges for HTA development in Vietnam. The biggest challenge is developing a framework that incorporates the use of HTA as well as a priority setting mechanism into the decision making process. However, there is a strong political will for HTA development in Vietnam, evident by the fact that there are currently 3 HTA pilot studies being conducted. Dr. Phuong expects that the results of these 3 HTA pilot studies will be used by the Ministry of Health and that the Vietnam Social Security (VSS) will refine the reimbursement list of medicines. In addition, the pilot study will pave the way for future development of the HTA system in Vietnam.

In conclusion, although none of the existing HTA systems are exactly the same, most of them share a common starting point – the need for more evidence-based and cost-effective choices in the healthcare. Moreover, the basic components for an HTA system as well as the characteristic of successful HTA agencies could be used as a blue print for countries that want to establish an HTA system to support their UHC. In the end, one thing that all HTA units share in common is the ability to link their results to the policy decision making process which is the ultimate goal of HTA: creating a bridge between science and policy.



ach year, more than 30.000 health economic evaluation studies are published in academic journals. One of the aims of performing health economic evaluation studies is to support policy makers in their decision-making. In practice, difficulties arise for policy makers when they need to compare results across economic evaluation studies. This is because each economic evaluation is performed differently. For instance, some studies may include discounting, age weights or use a country specific life expectancy life table whereas other studies may not.

As a response to this problem, The Bill and Melinda Gates Foundation (BMGF; http://www.gatesfoundation.org/) established MEEP (the Methods for Economic Evaluation Projects) to improve the quality and transparency of research, and to provide a guide for researchers. As a result, the Reference Case for Economic Evaluation, also known as the Gates Reference Case guideline (Gates-RC), was developed.

## The 11 principles of the Reference Case for Economic Evaluation

The reference case contains 11 principles to guide the planning, conducting and reporting of economic evaluations (See below). Each principle is supported by a set of methodological specifications and reporting standards.

- 1. **Transparency:** An economic evaluation should be communicated clearly and transparently to allow the decision maker(s) to interpret the methods and results
- Comparators: The comparators against which costs and effects are measured should accurately
  reflect the decision problem.
- 3. **Perspective:** An economic evaluation should consider all available evidence relevant to the decision problem.
- Measure of Outcome: The measure of health outcome should be appropriate to the decision problem, should capture positive and negative effects on length of life and quality of life, and should be generalizable across disease states.
- 5. **Measurement of Cost:** All differences between the intervention and the comparator in expected resource use and costs of delivery to the target population(s) should be incorporated into the evaluation.
- 6. Time Horizontal for Costs and Effects: The time horizon used in an economic evaluation should be of sufficient length to capture all costs and effects relevant to the decision problem; an appropriate discount rate should be used to discount cost and effects to present values
- 7. Costs and Effects Outside Health: Non-health effects and costs associated with gaining or providing access to health interventions that don't accrue to the health budget should be identified where relevant to the decision problem. All costs and effects should be disaggregated, either by sector of the economy or to whom they accrue.
- 8. Heterogeneity: The cost and effects of the intervention on sub-populations within the decision problem should be explored and the implications appropriately characterized.
- 9. **Uncertainty:** The uncertainty associated with an economic evaluation should be appropriately characterised.
- 10. **Impact on Other Constraint and Budget Impact**: The impact of implementing the intervention on the health budget and on other constraints should be identified clearly and separately.
- 11. Equity Implications: An economic evaluation should explore the equity implications of implementing the intervention.

## Testing the Reference Case for Economic Evaluation

In order to determine the feasibility of the reference case, National Center for Pharmaceutical Access and Management (NCPAM, The Philippines) and Health Intervention Technology and Assessment Program (HITAP, Thailand) collaborated to test the reference case principles. Together, HITAP and NCPAM, decided to select the principles that needed further consideration and converted their previous economic evaluations on pneumococcal conjugate vaccine (PCV) and human papillomavirus vaccine (HPV) according to the selected principles of the reference case. This conversion provided insights on different dimensions, for instance, the impact of human resources and the impact of incorporating different elements (e.g. discounting and age weights) into the DALY calculation.

Based on the preliminary results, the reference case is a promising tool for supporting both researchers and policy makers. For more information, please visit www.idsihealth.org



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## Institutionalizing Effective Priority-Setting of Health Interventions with the iDSI

**ASS** low-and middle-income countries (LMICs) around the world move towards implementing a comprehensive Universal Health Coverage (UHC), the need and demand for effective priority setting will increase. With the continuous introduction of new and often expensive technologies, LMICs are faced with the task of creating health care packages that meet their constituents' needs and still stay within the government budget. On the supply side, there is a lack of sustainable, international efforts that provide technical assistance for this purpose and can also tap on economies of scale. Towards this end, the Bill and Melinda Gates Foundation (BMGF) and the UK Department of International Development (DFID) provided funding to NICE International and a consortium of partners to support LMICs in making resource allocation decisions for healthcare, through establishment of the international Decision Support Initiative (iDSI) in November 2013.

The iDSI as a network aims to identify practical ways to scale up peer-to-peer process and technical support for more systematic, fair, and evidence-informed priority setting. Its main objectives are to: create a sustainable support mechanism for LMICs that operates globally (1), identify and analyze potential economies of scale (2), develop empirically robust methods for carrying out new – and adapting existing – HTAs for informing priority setting decisions (3), enhance communication between key stakeholders (4), and conduct a hands-on, in-country demonstration project based on demand and country profile (5).



In order to achieve the UHC goals of better health for all, financial protection, and social redistribution, iDSI provides assistance to countries through technical and process tools. Technical tools cover HTA in the broadest sense (including guidelines, pathways, quality standards, and others), providing guidance in defining affordable packages of cost-effective interventions, and redistribution objectives (e.g. targeting diseases that disproportionally burden the poor). One example of the technical tools is the Gates Reference Case (GRC) launched in

London in June 2014. As the method currently being piloted by iDSI, the GRC was developed through the BMFG's Methods for Economic Evaluation Project (MEEP) that aims to improve the transparency and quality of health economic evaluations conducted. This tool is currently being piloted by HITAP (one of the major partners of iDSI) in the Philippines to analyze data from previous studies on Pneumococcal conjugate vaccine (PCV) and human papillomavirus (HPV) in the Philippines.

Process tools include setting up an institutional foundation with deliberative processes, establishing procedural principles (e.g., transparency, independence from vested interests), and localising decision-making with stakeholder participation. The country demonstration project (begun in January 2014) is one of the major objectives and many of the technical and process tools are incorporated in this initiative. An iDSI mechanism of change that involves country stakeholders' using HTA for informed priority setting will be employed to support UHC, leading to investment into more and better HTA for future policy making, thus creating a continuous process of growth and capacity development. Throughout this process, the iDSI team continues to provide technical support and oversight to the overall HTA process, as well as in developing an advocacy and communications program on HTA for relevant stakeholders in Indonesia. The demonstration project will be completed in October 2015 and will be geared to inform other countries' HTA development.

With these efforts, the iDSI partners aim to sustainably support LMICs in the long run in making better decisions for healthcare resource allocation. For more information on the iDSI team, their projects, and their knowledge products, visit <u>http://www.</u> idsihealth.org/.



## The Roles of Asian Universities in HTA Capacity Building

**S** ince the WHO approved the WHA 67.23 resolution in 2014, which urges member states to consider establishing national systems of health intervention and technology assessment to promote evidencebased health policies, many countries have shown their interest in developing an HTA unit. HTA capacity building is fundamental to the establishment of national HTA systems. Having HTA researchers and experts are a key starting point to solve health need puzzles.

Universities and HTA agencies are the places where researchers actively produce HTA evidence to support decision-making in health care system. Recently, it has been discussed in meetings and workshops in Asian countries whether HTA capacity development should be the responsibility of universities alone or whether it should involve HTA agencies and HTA experts as well. What are they doing differently in developing HTA capacity?

To answer this question, we interviewed **Prof. Anthony Culyer** to give us his opinion about HTA capacity building. Prof. Anthony Culyer has been working at the University of York (Centre for Health Economics, United Kingdom) since 1969 and has been teaching in both Canada and the United Kingdom, where HTA took roots many decades ago.

#### The Different Roles of HTA Research in Universities and Agencies

In countries where HTA systems are wellestablished, both the universities and HTA agencies are responsible for HTA research. However, there is an important difference between universities and HTA agencies. For instance, most agencies, such as CADTH in Canada and NICE in the UK, do appraisals or systematic reviewing to reach conclusions and provide policy recommendations. Whereas HTA units in universities conduct HTA research, which sometimes are commissioned by HTA agencies.



**Prof. Culyer** explains how the universities respond to the need of the HTA organizations "They provide research results and support for committees, through membership and through the critical reviews of the evidence that the committees have. One more thing is they do education and training of HTA. Meanwhile, an organization like NICE requires universities' expertise to advise on methods, procedures and on specific technologies."

#### Bigger Roles for the Universities in HTA Capacity Development in Asia

**Prof. Culyer** suggests that to fulfill the national demand for HTA workforce, Asian universities need to play a bigger role in training HTA researchers and should gain more expertise in conducting HTA research. Moreover, governments should step in to give incentives. "Training, providing advices and doing research are all costly. So, we need to find packages that make universities able to do that and meet their expenditure and their reputation. If the universities need to build capacity then the government needs to support them with allowing foreigners to come and work at the universities."

#### Different yet Collaborative

From our interview with **Prof. Anthony Culyer**, we have learned that universities should be the first actor when it comes to HTA capacity development. The training in Universities can transfer HTA skills and knowledge to young researchers and the HTA research that the Universities perform can be utilized by HTA agencies.

In the meantime, through HTA agencies, results can be appraised and recommendations can be produced to formulate evidence-based health policy. Although universities and HTA agencies play different roles in developing HTA capacity, both contribute collectively to the shaping of health technology assessment system. Because each country has specific health system characteristics, different countries may require different proportions of university and HTA unit involvement to successfully establish their own HTA units. Moving forward, these country specific HTA units are what they have to design, discover and develop.



# HTA for HAPPINESS: MOH Bhutan visits SINGAPORE







A full house at the lecture on healthcare in Bhutan

Workshop on rapid health technology assessmen

On the steps of the Ministry of Health, Singapore

he Ministry of Health (MOH) Singapore and Changi General Hospital (CGH) hosted a visit by a delegation from the MOH Bhutan, from 13 to 15 April 2015. A group of four program officers from various departments in the MOH Bhutan was interested in studying the framework for HTA in Singapore, as well as the licensing system for healthcare facilities in the country. Led by Deepika Adhikari, from the Essential Medicines and Technology Division, the group was briefed on healthcare provision and financing in Singapore, regulatory licensing of healthcare facilities, HTA in the MOH Singapore and hospital-based HTA at CGH. The group attended a half-day workshop on conducting rapid HTA, co-organised by the Eastern Health Alliance (of which CGH is a founding partner) Health Services Research team and the Singapore Clinical Research Institute. Deepika also delivered a lecture to staff of the MOH Singapore, health services research units, hospital medical device committee members and the public health community. The lecture was entitled "Health Technology Assessment for Happiness: Healthcare in the Kingdom of Bhutan", which discussed how HTA helped in making evidence-based decisions on allocation of scarce resources in a country that has adopted Gross National Happiness as an indicator of social progress and population well-being. The delegation from Bhutan found their visit fruitful in learning about the Singapore health system and establishing links with their Singapore counterparts.





isit with Eastern Health Alliance Health Services Research team Enjoying a chicken rice lunch



Learning about Singapore's health financing system



The delegation with Dr Daphne Khoo, Group Director (Healthcare Performanc Group), and Dr Pwee Keng Ho, Consulto



# HTA CALENDAR July 2015 – January 2016



Event: Prince Mahidol Award Conference 2015: Pric Setting for Universal Health Coverage Place: Bangkok, Thailand For more information, please visit: http://www.pmaconference.mahidol.ac.th/

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# HTAslaLink Newsletter

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HTAsiaLink is a network to support collaboration between Asian health technology assessment (HTA) agencies. It focused on facilitate HTA research by accelerating information and resources sharing and developing an efficient methodology for HTA in the region.

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