

# Training Report

## Health and the Wealth of Evidence: A workshop on using Health technology Assessment (HTA) for priority setting in Indonesia



Kementerian Kesehatan  
Republik Indonesia



NICE International



Health and the Wealth of Evidence:  
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## Executive Summary

In continuing its support to the development of HTA in Indonesia, the international Decision Support Initiative (iDSI) (i.e. National Institute for Health and Care Excellence International (NI), UK and Health Intervention and Technology Assessment Program (HITAP), Thailand) in partnership with the Indonesian MoH, and World Health Organization (WHO) organized a five day workshop titled “Health and the Wealth of Evidence: A workshop on using Health technology Assessment (HTA) for priority setting in Indonesia” from 25<sup>th</sup> to 29<sup>th</sup> April, 2016, at the JS Luwansa Hotel in Jakarta, Indonesia. The main objectives of this workshop were to: increase awareness on HTA and its role in decision-making; build HTA capacity in universities and research institutes; to support the Indonesian Ministry of Health (MoH) in identifying potential local partners; and to initiate national and international collaboration on HTA.

Four iDSI partners were involved in this workshop, HITAP, NICE International, Mahidol University and University of York. Further, a health economist from the WHO HQ also facilitated sessions and supported group work. The workshop covered an introduction to HTA and its policy application, the clinical and economic analyses used for HTA, social and ethical considerations for priority setting, and the applications of economic evaluation to policy. In all, there were 55 participants who benefited from these content of the workshop. They were from the University of Indonesia (Jakarta), University of Gadjah Mada (Jogjakarta), University of Airlangga (Surabaya), University of Hassanuddin (Makassar), as well as P2JK and NIHRD, two units in the MoH. In addition to the good turn-out from academics and potential primary investigators, several high-level stakeholders also participated, such as Dr. Donald Pardede, the head of P2JK, and Dr. Untung Suseno, the Secretary General of MoH Indonesia. The evaluation of the workshop yielded positive attention and involvement from the participants.

While Indonesia has taken steps forward in terms of HTA, there are still several improvements and developments to be considered. The partners (iDSI through HITAP and NI) will: support the new InaHTAC and local partners to develop and implement the HTA roadmap; support the Indonesian Health Technology Assessment Committee (HTAC or InaHTAC) to develop and implement HTA method and process guidelines; support the Memorandum of Understanding (MOU) signing between the Thai Ministry of Public Health (MoPH) and Indonesian MoH on HTA; support Indonesian partners and the WHO to conduct a study on economic burden of influenza; and support the implementation of HTA results on Package for Essential Non-Communicable Disease (PEN), Pulmonary Arterial Hypertension (PAH) treatment and renal dialysis. In 2017-2018, the iDSI partners may explore providing HTA postgrad course in Indonesia. The collaboration with the Mahidol University will also provide scholarships and placements in their HTA program for promising Indonesian scholars, with support not just from the iDSI but also from WHO.

## Introduction

This report is divided into the following main parts: background, sections of the summary, the results of the training, updates from iDSI partners, next steps, and recommendations for future training or workshops. The *Background section* will discuss the health system and HTA in the country as well as the developments that have occurred so far that led to the conduct of this workshop. The *Summary section* includes daily summaries of the workshop, the Health Technology Assessment (HTA) protocol development, and main discussion points of meetings outside the workshop. Topics include:

- Introduction to HTA: Overview & Policy application (1 lecture session)
- Diagnostics and Clinical trials (2 lecture sessions)
- Research methods (3 lecture sessions + 2 practical exercise sessions)
- Measuring healthcare costs and outcomes (2 lecture sessions + 2 practical exercise sessions)
- Economic Evaluation in Health and Economic Modelling (1 lecture session + 1 practical exercise session)
- Decision Rules (1 lecture session)
- Uncertainty Analysis (1 lecture session)
- Social and Ethical Considerations for Priority Setting (1 lecture session)
- Application of Economic Evaluation (1 Panel discussion)

The latter subsection provides an idea of the other projects and activities that impact HTA in the country, which includes a business meeting between the organizing partners, a meeting with the Ministry of Health (MoH) on the developments of national disease and economic burden studies of seasonal influenza, and a meeting with Itad colleagues who came to assist in evaluating the progress of the international Decision Support Initiative's (iDSI's) work in the country. *Updates from iDSI Partners* include activities from other iDSI engagements in the country, such as the Mahidol University HTA program. The *Next Steps section* discusses HITAP and iDSI partners' plans for HTA development in Indonesia, while the *Recommendations section* outlines potential improvements to the conduct of similar types of workshop and/or meetings in the future.

Annexes will include the list of participants, photos, and training tools used (e.g. PowerPoints and exercise tools).

## Background

Indonesia launched its universal healthcare program, the Jaminan Kesehatan Nasional (JKN), in 2014 and will cover all Indonesians by 2019. The largest health insurance scheme in the world with over 133 million people enrolled<sup>1</sup>, the JKN is a tiered premium-based system supplemented by government subsidies which cover the poorest. The cost of the program is estimated to be around USD 13-16 billion per year until the JKN is fully rolled out<sup>2</sup>. The ambitious nature of the program, challenges in implementation and the high cost associated with bringing healthcare to all brought priority setting to the fore and in 2013, a Presidential Regulation called for the use of health technology assessment (HTA) in deciding the benefits covered by the scheme<sup>3</sup>. In response, Indonesian HTA Committee (HTAC or InaHTAC) was set up in the MoH in 2014. The P2JK or Centre for Health Financing and Insurance serves as its Secretariat and an Ad Hoc panel of experts provides independent input.

The HTAC has received support from various international donors and organizations including the International Decision Support Initiative iDSI through which the Health Intervention and Technology Assessment Program (HITAP), Thailand, has been providing technical assistance. There have been three channels of engagement: high-level engagement with policymakers, workshops and study visits of HTAC staff and technical assistance in conducting HTA studies. This year, a delegation from Indonesia, including high level policy makers, participated in the Prince Mahidol Award Conference (PMAC) and also attended a half day meeting at HITAP after the conference to learn about the topic selection process, identify barriers to sustaining HTA in Indonesia and to discuss areas for collaboration with partners. In addition to learning about the HTA process in Thailand along with comparisons with the UK model, the discussion brought up key issues around the status of HTA in Indonesia as well as the challenges going forward<sup>4</sup>.

In continuation of this partnership, the MoH and the World Health Organization (WHO), along with support from iDSI, organised a five day workshop titled “Health and the Wealth of Evidence: A workshop on using Health technology Assessment (HTA) for priority setting in Indonesia.”

The objectives of the workshop were as follows:

1. To increase awareness on HTA and its role in decision making,
2. To build HTA capacity to generate evidences in universities and research institutes,
3. To support MoH in identifying potential partners (universities and research institutes) in HTA program in Indonesia and
4. To initiate national and international collaboration and networking on HTA.

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<sup>1</sup> “Indonesia Economic Quarterly In times of global volatility”, The World Bank Group, October 2015. Available at: <http://www.worldbank.org/en/news/feature/2015/10/22/indonesia-economic-quarterly-october-2015>

<sup>2</sup> “Indonesia’s universal health care goals”, Oxford Business Group, 2015, Available at: <http://www.oxfordbusinessgroup.com/overview/indonesias-universal-health-care-goals>

<sup>3</sup> “Regulation Of President Of The Republic Of Indonesia No. 12 Year 2013 Concerning Health Care Benefits”, Translation – Presidential Regulation No. 12/2013 Social Protection Team, The World Bank, Jakarta Office. Available at: [www.social-protection.org](http://www.social-protection.org)

<sup>4</sup> See HITAP’s “Report: Indonesian Delegation: Study Visit to HITAP, 1 February, 2016”

## Section Summaries

### Section A: Summary of Lectures and Accompanying Exercises

The workshop was structured to have 14 lectures along with practical exercises where applicable over the first four days and a discussion on HTA in Indonesia on the final day of the workshop. A day-wise summary of the same is provided below:

#### **Day 1:**

The workshop was opened by Dr. Donald Pardede with remarks from Dr. Salma Burton from the WHO and Dr. Yot Teerawattananon from HITAP. Francis Ruiz from National Institute for Health and Care Excellence International (NI), UK, provided an introduction to HTA, discussed how it has been institutionalised in countries as well as the key issues for LMICs going forward, such as cost of new infrastructure and frontline issues. Raymond Hutubessy then spoke on the application of HTA for Vaccines, and talked about the Global Vaccine Access (GVAC), “new generation vaccines” and gave the example of introducing HPV vaccine in various countries. This session was followed by a presentation by Dr. Yot on identifying research questions and their scope. After the lecture, a topic prioritization exercise was conducted and participants were divided into six groups, whereby three groups identified areas for investment and the other three groups identified areas for disinvestment. Each team listed two topics and discussed which groups may suggest topics, the barriers and limitations of making investments or disinvestments, the criteria they would use to make decisions and the stakeholders who would be responsible to make the final decisions on investing or disinvesting a technology. The exercise demonstrated the need of involving various stakeholders and having different types of criteria.

There was a rich discussion following each of the sessions in the morning. On institutionalising HTA, participants asked questions on how to deliver HTA as a platform and how findings are disseminated. The presentation on HTA for vaccines raised the question on whether participants knew about the HPV vaccine situation in Indonesia and whether one can apply studies done in other countries to Indonesia or whether there was a need for a country-specific study. One participant noted that HTA is only used in slow-moving diseases and asked whether governments can use HTA for “fast-moving” diseases. An example from Thailand was provided on the influenza pandemic where this question was raised and Dr. Yot said that modelling can be used to make predictions. Responding to the presentations in the morning, Prof. Sudigdo said that while examples from the UK and Thailand are illustrative, the unique geographical features of Indonesia where there are thousands of islands make it difficult to depend on studies that collect and use data from big cities only. This begs the question on how reliable these studies are for the country. Dr. Yot said that this issue is widespread and gave an example from Thailand where a program on pregnant women and osteoporosis was found to not be good value for money and the study faced tremendous backlash. The groups from the morning exercise on investment and disinvestment presented their discussions and Dr. Yot noted that there were several research questions related to HTA. He added that while investment is relatively easy, it is also difficult because one needs to get money for it. On the other hand, disinvestment can become difficult as there are various political issues at stake.

The afternoon sessions were reorganised to include a session on Diagnostics and Screening by Prof. Iwan Dwiprahasto, which was originally scheduled for Day 4 of the workshop. Prof. Iwan spoke about how HTA can be used for policymaking and gave examples of tests used to detect certain disease, highlighting that interventions can suffer from the inaccuracy of results. He went on to discuss validity characteristics, especially sensitivity and specificity as well as characteristics of a good diagnostic test,

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and notions of predictive value and likelihood ratios. This session was followed by a presentation and exercise on Systematic Reviews led by Waranya Rattanavipapong. She introduced the PICO framework as well as the databases that can be referred to. Waranya highlighted some of the best practices, such as searching at least two databases or using MeSH terms, and spoke about critical appraisal and assessment tools such as the Drummond Checklist. After the lecture, an exercise was conducted to practice doing a search for the clinical efficacy of sildenafil for Pulmonary Arterial Hypertension (PAH) using the PICO framework and search terms.

#### **Day 2:**

Dr. Montarat gave a lecture on what is and how to conduct a meta-analysis. After the lecture, a discussion followed in which participants were keen to know which kind of study should or should not be included in the meta-analysis. Since there are some predatory journals which may publish articles of questionable quality, the participants thought that the analysts may consider excluding them to which Dr. Montarat said that this depends on the judgment of the analyst. The participants then had a chance to get a hands-on experience on how the data extraction is done for conducting a meta-analysis using a software called RevMan. The participants followed the steps outlined in a handout and tried to input the extracted data into the program. It was pointed out that one of the advantages of RevMan was the program's ease of use and types of functions available. However, it was also noted that RevMan is more suitable for analysing small sets of data. For complicated sets of data or analyses, a different software may be employed.

Afterwards, the participants learned about the measure of health outcome from Dr. Montarat, who gave an overview of the different types of health outcomes such as disability-adjusted life years (DALYs) and quality-adjusted life years (QALYs), how utility is measured and went into details on different measurement tools, e.g. time trade-off (TTO), standard gamble (SG) and the EuroQol's EQ-5D. She then guided participants through an exercise on measuring health utility where, on one hand, participants were asked to measure their health on that day using EQ-5D and on the other hand, had to imagine what their utility would be for some health states, using TTO and SG methods. The Thai value set was used to derive the utility score from the EQ-5D tool. There was a question on how long is the value set valid to which fact, there is no specific period since the tool measure people's preference so it depends on how quick people change.

#### **Day 3:**

Dr. Usa gave a lecture and had an exercise on costing health care. The moderators answered that this will be discussed the next day during the decision rules lecture. In the afternoon, there was a lecture and exercise on economic modelling for healthcare. During the discussions, the point was raised that guidelines have been developed on economic analysis and most advocate for researchers to use societal perspective. However, a point was made on the difficulty of capturing Indonesia's diversity in terms of geographical, socio-economic, and resource characteristics. On the other hand, a budget impact analysis uses a government or payer perspective. Another point was made that in the last 2 studies with data from Java, the sample size was very low; however, but if indirect cost isn't included, the costs will be underestimated. Thailand has a database which is a good lesson learned for Indonesia (i.e. costing menu). A participant asked about economic outcomes and the reason for the increase of the threshold in Thailand.

#### **Day 4:**

To let the participants have the sense of how different factors can affect the utility measure, HITAP shared the results of the health outcome measure from the previous exercise. The utility score of each participant derived from the exercise was pooled, analyzed, and compared across different tools (TTO,

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SG, EQ-5D) and between genders. It turned out that for the same health state, female tend to have higher utility. This may be explained by genetically different mindset difference on how life is measured between males and females.

Following the results sharing, Dr. Andrew Mirelman provided a lecture on the decision rules. The presentation covered the willingness to pay threshold and how to interpret the result of economic evaluation studies. There was a discussion on the threshold which should be used in Indonesia. According to the World Health Organization, the recommended threshold for a country is 1-3 times of the country's gross domestic product (GDP). However, there is also a comment that the threshold is actually too high. Therefore, the appropriate threshold for Indonesia remains to be discussed.

Afterwards, Dr. Yot shared the Thai experience on making decisions for the development of the Thai National List of Essential Medicines. He also emphasized the benefit of having a clear threshold. It not only to help clarify the cut point of 'cost-effectiveness', but also can they be applied for price negotiation. If a study found that an intervention is not cost-effective, a threshold price, i.e. the highest price at which the intervention is cost-effective, can be determined and inform the negotiation for a lower price from the pharmaceutical companies. Francis Ruiz added that with communication, the price can be discounted. With HTA information, the price can be reduced by larger margin than without them.

The next lectures were about uncertainty in cost-effectiveness analysis by Francis and Dr. Andrew. The lecture discussed about the uncertainty which may occur due to the use of economic evaluation and how to incorporate it to the simulation. It was followed by the lecture on priority setting in HTA and ethics and equity by Carleigh Krubiner. Afterwards, the participants were asked to participate in a group exercise discussing the options in health allocation that the participants think is more ethical and equitable. An example for ethical consideration in Indonesia was raised which was to provide dantrolene for malignant hypothermia. Not many people develop this condition but it can be life-threatening. Therefore, if the intervention is not provided due to the limited number of beneficiaries, it can be considered unethical. Later, Prof. Sudigdo shared his knowledge on diagnostic interventions, followed by Dr. Yot's presentation on how to publish papers in academic journals.

In the afternoon, participants continued doing the group work exercise discussing the methodology in more details. This included the methods for data analysis, types of model used for economic evaluation studies, budget required and timeline of the work. At the end, the groups prepared the presentation for proposal presentation which will occur in the following day.

### **Day 5:**

On the fifth day, the groups presented their results to the workshop attendees (see the HTA Protocol Development section for detailed information on the proposals).

The mentors and judges remarked that there were a lot of policy relevant research questions and it is a good opportunity that the HTAC can see that there are more topics to do. It is clear from the presentations that the guidelines need to be endorsed and publicized for all researchers and scholars to follow. There is a major issue about variation of methods to be used for HTA such as: value set for EQ-5D (e.g. use either Malaysia or Thailand?); intangible costs were picked up in only some studies with the global literature still having controversies (no clear recommendation) and countries need to make the decision to count or not count intangible costs and also quality of life of people outside the patient groups; thresholds are still an issue. One of the solutions for thresholds might be for the University of York to conduct a ceiling threshold study in Indonesia for HTAC and P2JK to consider.

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Prof. Sudigdo then gave a presentation on the roadmap. On 21 April 2014, the MOH passed a decree to establish a national HTA committee that will operate for 2 years. The InaHTAC was established and their main functions are to: collect proposal of topics from stakeholders, directors of hospitals, faculties, professional organizations, etc.; select and prioritize HTA topics; coordinate assessment which will be done by the HTA agencies, universities and research institutes; and appraisal (InaHTAC appraises the results of the assessment). This plan will be executed gradually and should include experts from professional organizations from the beginning.

A question was raised on the endorsement not only of the MoH but also other stakeholders through their involvement and participation in the roadmap finalization. The InaHTAC term ends this month so the new committee should follow the new plan, and the next steps will depend on the new head of the next committee. Another question was raised on how the HTA proposals will be used in policy as well as the developments in use of HTA for broader decision-making process in Indonesia. Prof. Sudigdo replied that the results on PAH and PD have been provided to the Minister and she and her staff received it. One of the problems is that the facilities in many areas in Indonesia aren't as good as in Jakarta. As such, implementation after the recommendations should be done by the Minister of Health and the staff but monitoring and evaluation must be conducted if the recommendations are implemented or not. It takes many years to see application of recommendations in Indonesia, and this is beyond the InaHTAC's capacity.

Dr. Salma Burton mentioned that the WHO will provide scholarships for some Indonesian scholars to do post-grad study at Mahidol next year (2017). Prof. Sudigdo closed the workshop.

## Section B: HTA Protocol Development

**Overview:**

A major component of the workshop was the HTA Protocol Development, a group work activity to which one hour was dedicated at the end of each day. Each group was tasked with developing an HTA protocol, based on guidelines provided, and make a presentation on the last day of the workshop. Six groups were formed around topics of interest and each group was assigned at least one facilitator from the resource persons present. In all, there were 43 participants who took part in this assignment. The topics selected by participants are listed in Table 1 below:

Table 1:

Sr. No.	Topic	# Participants	Short Name*
1	Economic Evaluation of Provision Of Prosthetic For Lower Limb Amputee	9	Prosthetics
2	Economic Evaluation of Trastuzumab as Treatment for Metastatic Breast Cancer	7	Trastuzumab
3	Dantrolene For Malignant Hyperthermia Syndrome (Mhs / Mh)	5	Dantrolene
4	Clinical Effectiveness and Economics Evaluation of Digital Subtraction Angiography (DSA) as Neuro-endovascular Intervention for Ischemic Stroke	8	DSA
5	Bevacizumab for Colorectal Cancer	7	Bevacizumab
6	Economic Evaluation of Aripiprazole as Drug Therapy for Schizophrenia Patients	7	Aripiprazole

\*For ease of reference

**Summary of proceedings:**

On the first day of the workshop, participants were divided into groups and start to work on their HTA studies. The first part of the process was to identify the topic as well as the objective of the study. Participants were asked to think about criteria to pick a topic for a disease looking at burden of disease in Indonesia, political interest as well as where the most money is being spent. On the second day, following the lectures and exercises, groups were reorganized based on topics of interest and groups. They discussed the policy questions related to the topic and applied the PICO framework to formulate their research questions. Further, groups were asked to elaborate on the background of the topics chosen as well as their rationale for investigating them. Participants were asked to apply what they learned on costing and modelling on the third day. On the fourth day, participants delved further into developing their protocols and discussed the methodologies to be used for data analysis, type of model for economic evaluation studies as well as budget requirements and the timeline. Additionally, participants worked on preparing for their presentations which were to take place on the following day.

The six groups presented their findings to a panel of reviewers who provided feedback and judged each presentation. Overall, the reviewers noted that there are many policy-relevant research questions which allow the HTAC to see that potential for additional topics. The protocols also bring attention to the importance of endorsing the guidelines and publicising them for researchers and scholars to use. Three areas where that could use future work on HTA are around which EQ 5D value set ought to be used for Indonesia, accounting of intangible costs, over which there is little consensus, and the threshold value, for which one solution would be for academics at York to conduct a study in Indonesia for the HTAC and P2JK to take into consideration. The key issues raised for each presentation are listed below:

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Table 2:

Sr. No.	Short Name*	Key Issues raised
1	Prosthetics	<ol style="list-style-type: none"> <li>1. Timeframe of decision tree model limited to only 5 years</li> <li>2. Choice of comparators and how to take side effects of prosthetics into account</li> <li>3. Variation in prevalence and cost in different parts of Indonesia</li> <li>4. Prosthetics already included in BPJS but questions around standard to be used remains</li> <li>5. Exclusion of people over 65 years in population</li> </ol>
2	Trastuzumab	<ol style="list-style-type: none"> <li>1. Study design and the choice of comparator</li> <li>2. Time horizon was Not in the methods</li> <li>3. Sensitivity analysis of variables with most uncertainty and variables with least amount of data</li> <li>4. Budget impact and top-up payments</li> </ol>
i3	Dantrolene	<ol style="list-style-type: none"> <li>1. Sample size of patients with condition is questionable</li> <li>2. Screening of genetic disorder</li> <li>3. Non-availability of treatment in Indonesia and impact on study</li> <li>4. Measurement of intangible costs</li> <li>5. Need for better data</li> </ol>
4	DSA	<ol style="list-style-type: none"> <li>1. Safety and side effects of DSA</li> <li>2. Estimating opportunity costs</li> <li>3. Focus of study on diagnostic or treatment aspect</li> </ol>
5	Bevacizumab	<ol style="list-style-type: none"> <li>1. Choice of treatment for end-stage cancer and impact on quality of life</li> <li>2. Impact on budget (savings) through disinvestment</li> <li>3. Choice of comparators especially palliative care</li> <li>4. How palliative care is provided across country, impact on costs and scope for improvement</li> </ol>
6	Aripiprazole	<ol style="list-style-type: none"> <li>1. Measuring utility by proxy (of caregivers)</li> <li>2. Accounting for intangible costs through indirect costs</li> </ol>

\*For ease of reference

## Section C: External Meetings

There was a discussion with Victoria Rabovska from the GIZ:

1. Possible collaborations include technical HTA and policy awareness around how HTA fits into the decision-making process (and what GIZ's role is). HTA is developing in isolation and other stakeholders see the value in it but don't know how to include it.
2. Another area of possible collaboration is in comparative assessments. The discussion centred on the interest of stakeholders and who has the largest incentive. It was mentioned that potentially BPJS/Ministry of Finance (MoF) because there has been debt for JKN. The MoF would need education and awareness raising.
3. Upcoming events include WISH (World Innovation Summit for Health) in Doha in Nov. 2016, potentially to get high levels from Indonesia involved in this event. If this will going ahead, HITAP will need to in touch with Thai non-government organisation (NGO) for UHC and have an exchange.
4. Another potential activity is to have another high-level meeting (similar to the one in Sep. 2015). This will need to have a broader platform and more preparation for high-level meeting
  - a. There is a gap of understanding for overall picture/complete system so future meeting should focus on closing the gap in communication.
  - b. More groundwork and repeated messages from high-levels from Thai experience.
5. HITAP's plan includes working with Ibu Becky on the review of off-label use of medicines. This can be expand to a system perspective and push for more flexible use. HITAP will also support implementation of PD results. They will support universities & proposals that were shown at the April workshop. A high level education in collaboration with GIZ and WHO (WHO only works with MoH, GIZ can work with NGOs) will be initiated. Possibly a smaller workshop in July to help guide 2 HTA topics (take note of Ramadan) will be planned.
6. China/Mexico may be examples of LMICs with decentralized systems that can be shown to INA. The priority to bring together the fragmented system. University of York will do normative work.
7. HITAP will speak with PATH about channeling money to local organizations in collaboration with GIZ.
8. GIZ is trying to place pharma policy as a more permanent financial protection and social issue for the system. Pharma's large share of expenses, cause financial burden on patients, and cause deficits for BPJS are key arguments. The CEO, board of directors, the supervisory board of BPJS needs change.
9. Ibu Becky used to be one of the directors of BPJS, but is now the head of the Working Group Health in the National Team of Poverty Alleviation under the Office of the Vice President. They seem committed but recommendations weren't specific.
10. GIZ will share their plan and timeline to HITAP. They may plan for a micro perspective assessment to see what kind of data/evidence is used as input and what is the output (2 months).

A meeting with the MoH on the developments of studies on the disease and economic burden of influenza was conducted. The disease burden study is underway and the methodology and results were discussed. From data gathered around Indonesia, they found that 20% 1300 cases are ILI and 923 SARI cases identified in the ILI and SARI sites. They conducted the study in four sentinel sites: East Kalimantan, Sumatera Utara, Yogyakarta, and East Jakarta. The outline for the economic burden methodology was also discussed, and some concerns were raised regarding where they would be conducted (e.g. should Jakarta be included).

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These two studies are based on guidelines from the WHO and part of a larger initiative to conduct standardized studies around the world. The conclusion of the meeting was that the MoH:

- Will finalize the BoD estimates before the end of July. Today they presented preliminary results from one sentinel site (Wonosari in Yogyakarta) while the other two sites in Sumatra and Kalimantan will follow before July.
- Agreed with overall objective of the economic burden study and that the study can start in parallel with finalizing the burden study.
- Agreed with the protocol shared earlier this week by Septiara in Bahasa including the activities, timelines and responsibilities of the different parties involved. MoH will put a local working group who will adapt the protocol to the local context without changing the methodological concepts as laid out in the WHO manual.
- Agreed that the economic burden study will be done in North Sumatra, East Jakarta, Yogyakarta and East-Kalimantan. The economic burden data collection will start in July after the workshop in June.

They will be following up on:

- MoH, Endang and Septiara and others in the working group will modify the protocol and where needed the activities/timelines.
- Endang will share with us the presentations from MoH Burden “ongoing study” with preliminary results.

## Results of the Workshop

In order to measure the impact of the workshop, three tools were developed to specifically address Objectives 1 & 2 i.e. raising awareness of HTA and building capacity for HTA. These were a quiz to assess the knowledge gained by participants, evaluation forms for each session of the workshop, and an evaluation form for the HTA Protocol Development module of the workshop. The quiz was administered on the first and last days of the workshop, for a before and after comparison. Paper versions of evaluation forms were given to participants at the end of each session and collected. For the HTA protocol development module, presentations were evaluated by a panel and an online survey link, with an option to respond to a paper questionnaire, was sent to participants who took part in the group work; participants were given one week to complete the survey with a reminder on the day before closing. The details of the structure and results of these three tools are provided below:

### Quiz:

A ten-question quiz was designed to assess the level of understanding of participants on HTA in Indonesia and topics covered over the course of the workshop. The quiz was given out to participants on the first day of the workshop and was completed by 31 people, serving as a baseline. The person with the highest score was selected as the winner and given a token of appreciation. On the last day of the workshop, the same quiz was given out to participants and of the 28 participants who completed the quiz, 19 had also completed the quiz on the first day. Among these, three participants who showed the most improvement were given tokens of appreciation. While the increase in the average score was not large, the results suggest that more than half of the participants who took the quiz on both days had made an improvement. These are summarised in the table 3 below:

Table 3:

Round	# Participants	Average Score (Total Score: 10)	Highest score (Total Score: 10)
Day 1	31	6.3	9
Day 5	28/ 19 completed on both days	6.9 (of 28 participants)	Highest Increase of 4 points by 3 participants of 19 participants ~53% showed an improvement

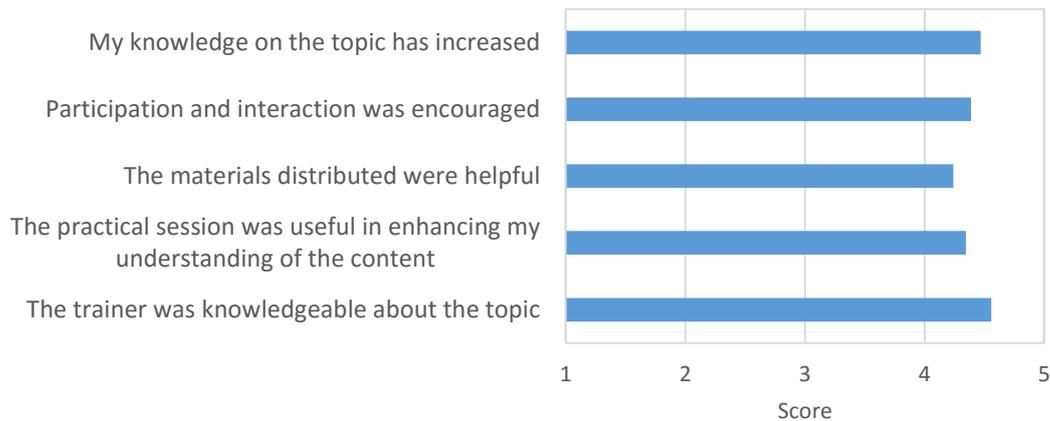
### Evaluation of Sessions:

Feedback forms were given to participants at the end of each session. The response rates varied from one session to another, with the highest response rate for a session being on Day 3 at 56% and the lowest response rate being on Day 4 at 5%.

- 1) In one set of questions, participants were asked to rate five dimensions of the sessions on a 5-point Likert scale. The results for this set of questions have been shown in Figure 1 below for all the sessions; graphical description of scores for each session are available in Annex 4.

**Health and the Wealth of Evidence:  
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Fig. 1: Please indicate your level of agreement with the following statements:



Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree  
Exclude no response to sub-questions or "Not Applicable/Don't Know" for calculations

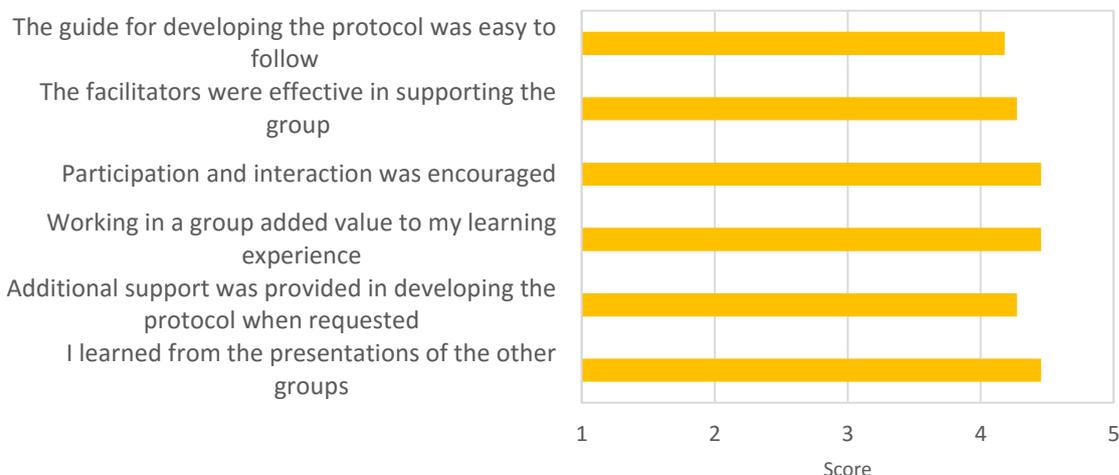
- 2) In addition, participants were asked open-ended questions on whether they had any questions on the context of the session, whether they needed more resources, as well as if they had any other comments. Respondents asked specific questions on the content of the session, made observations on HTA in Indonesia, commended presenters and also noted that additional time for exercises was needed as was better infrastructure (internet) to complete the exercise. For example, one participant said that "Institutionalizing the HTA requires commitment at all levels. It may take years for Indonesia to reach that level. Hope, [through] consistent communication, the institutionalization will [be] possibly happen soon."

**HTA Protocol Development:**

- 1) Groups made presentations of their HTA protocols on the last day of the workshop and were judged by a panel of reviewers on a set of criteria. The scores were averaged and the team working on the "Economic Evaluation of Trastuzumab as Treatment for Metastatic Breast Cancer" won; the members were given tokens of appreciation.
- 2) The results of the survey sent to participants of the HTA protocol development are presented below. The survey was sent to 40 participants who were from Indonesia and whose email addresses were available (43 participants took part in the group work); the response rate was 28%. The questions of the survey were both quantitative as well as qualitative in nature. Two sets of questions used a 5-point Likert scale to understand the participants' opinion on the design of the module as well as the experience of developing an HTA protocol; the responses to these questions are shown in Figures 2 and 3. The open-ended questions asked about the most difficult aspects of developing a protocol, additional resources needed and other comments. Table 4 below shows the frequency of difficulties faced by participants. Further, respondents offered feedback for future courses and also stated that the workshop was useful in broadening their knowledge of HTA (see Table 5).

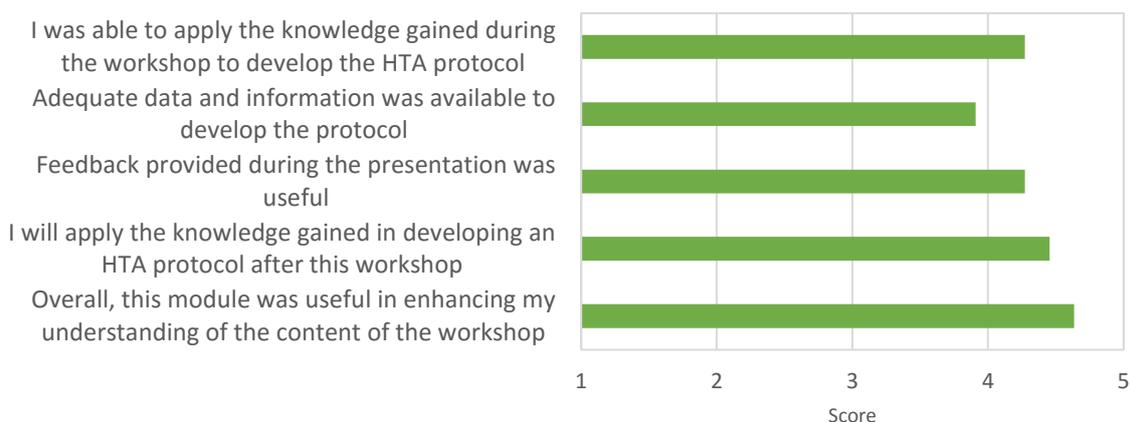
**Health and the Wealth of Evidence:  
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Fig. 2: Design of module: Please indicate you level of agreement with the following statements



Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree  
Exclude no response to sub-questions or "Not Applicable/Don't Know" for calculations

Fig. 3: HTA Protocol Development: Please indicate you level of agreement with the following statements:



Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree  
Exclude no response to sub-questions or "Not Applicable/Don't Know" for calculations

Table 4\*:

Difficulty	# Participants
Access to cost data	1
Developing protocol for medical devices	1
Meta-analysis	1
Need for clinical expertise	2
Constructing the model	3

\*Numbers may not add up to total number of respondents

Table 5\*:

Feedback	# Participants
Enhanced knowledge of HTA	5
Need more in-depth training (eg. modelling)	2

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Wish to participate in future workshops	1
Exposure to HTA for different types of interventions and technologies	1
Suggestions on organisation of workshop (limit number of participants and organise seating arrangement to allow for more interaction)	1
Share list of donors who could fund such research	1

\*Numbers may not add up to total number of respondents

## Updates from iDSI Partners

Assoc. Prof. Dr. Usa Chaikledkaew and Assit. Prof. Dr. Montarat Thavorncharoensap from Mahidol University (MU) joined the HTA workshop as an invited lecturers during April 26-27, 2016 in Jakarta, Indonesia organized by the WHO, HITAP, and NICE International. On this occasion, they had a chance to promote HTA postgraduate programs at MU to Indonesian participants. Moreover, Dr. Salma Burton, the WR of the WHO country office, announced that WHO country office is willing to provide the fellowships for the Indonesian students to pursue the HTA postgraduate study at MU in order to support the HTA capacity building in Indonesia. This postgraduate program is also a part of iDSI's broader program of activities.

In addition, the professors had a chance to discuss with Prof. Hasbullah Thabrany, Chair of the Center for Health Economic and Policy Studies, University of Indonesia (UI) and Dr. Mardiaty Najib, School of Public Health, University of Indonesia (UI) and agreed to collaborate on HTA capacity building activities as follows. First, UI plan to invite MU staff to share experiences in HTA and promote HTA postgraduate programs at the seminar for UI's students and staff as well as policy makers at Ministry of Health in September 2016. Second, UI will send young staff to join classes in HTA postgraduate program at MU. Third, in the future, UI has a plan to open the Master of Public Health degree with the major in health economics which they would like to have MU academic support.

Last, UI will invite the colleagues not only from the School of Public Health but also other schools such as School of Pharmacy to join the HTA capacity building activities.

## Next Steps

The workshop garnered positive attention and involvement from academics and universities, and participants did well during the various activities. However, several issues are still outstanding, such as the linking of the three studies that have been done so far to policy and the outcome of the roadmap written by Prof. Hasbullah. Several developments – i.e. the formation of the new InaHTAC with the end of the term of the current one, the selection of the new InaHTAC head, and the departure of Dr. Pardede as the current P2JK head with the successor yet to be determined – spell a period of great potential for change and work to be done. As such, the partners (iDSI and the WHO) had a teleconference post-workshop to discuss the next steps. The following outline the medium term plans for Indonesia.

The partners will: support the new InaHTAC and partners to develop and implement the HTA roadmap; support the InaHTAC to develop and implement HTA method and process guidelines; sign the MOU between the Thai MoPH and Indonesian MoH on HTA; support Indonesian partners and the WHO to conduct economic burden of influenza; and support the implementation of HTA results on PEN, PAH treatment and renal dialysis.

For the first, NI and HITAP will comment on the current roadmap and wait for the opportunity to be able to give their information to the MoH. A stakeholder consultation meeting may be held to endorse the finalized roadmap. To formalize the collaboration between the two ministries through the MoU, HITAP is now processing the draft send by the Indonesian MoH with the Thai national authorities. A high-level meeting may be planned this year in collaboration with the partners (and perhaps also the GIZ) to increase awareness on HTA.

HITAP is supporting the implementation of studies for the PAH and renal dialysis. For the first, they are coordinating with the head of Working Group Health in the National Team of Poverty Alleviation under the Office of the Vice President (VP) to conduct a study on the use, law and regulation of off-label medicines in Indonesia in order to provide a more holistic information on this topic. HITAP is also supporting another HTA project through the WHO and the MoH – an economic and disease burden study for seasonal influenza.

The revision for the benefits package (BP) can be done in collaboration with the GIZ. This is very important since Indonesia wants HTA BP. Other activities include inviting local partners to a technical workshop on benefits package development in Geneva with the WHO and potentially to WISH (World Innovation Summit for Health) in Doha. Currently, 4 topics have been identified (proposed by BPJS), and two were presented during the protocol development exercise. In addition to these two projects, the partners may organize a follow-up workshop with the same group of participants to assist with the conduct of the HTA studies and/or topics that were presented during this first workshop.

The partners have decided to firmly make further support for HTAs conditional to implementation and/or completion of activities in the roadmap. Another important point is that the process for topic nomination should be made clear and topics should not come solely from the MoH/BPJS. One promising development from the workshop was a request from Prof. Sudigdo to develop the EQ-5D value set for Indonesia; however, a PhD student with the EuroQoL have already developed it. The partners will help facilitate the introduction of this value set and its acceptance by the government and the InaHTAC.

In 2017-2018, the partners may explore providing HTA postgrad course in Indonesia. The collaboration with the MU will also provide scholarships and placements in their HTA program for promising Indonesian scholars, with support not just from the iDSI but also from WHO.

## Recommendations

Based on an internal after action review (AAR) as well as feedback received from facilitators, below are some points on organisation, content, process for evaluation and group work:

Table 6:

Areas	Recommendations
Pre-workshop preparation	<ul style="list-style-type: none"> <li>• Conduct internal meetings on a regular basis so that all parties are on the same page</li> <li>• Promotional material (flyer, etc) may be developed to communicate on workshop</li> </ul>
Logistics	<ul style="list-style-type: none"> <li>• Have printed materials available even if on a day-to-day basis for participants to refer to, in addition to soft copies. Files with printouts for all participants is an option.</li> <li>• Assign tasks on note-taking, time keeping of presentations and exercises, introduction/closing remarks for session or day</li> <li>• Ensure workability of software or other features for smooth functioning. Prepare for alternatives in case of limitations</li> </ul>
Content	<ul style="list-style-type: none"> <li>• Involve local academics in agenda development early on</li> <li>• While the focus of this workshop was on synthesis of evidence, other topics such as uncertainty analysis could be expanded on in another iteration</li> <li>• Set aside more time for practical exercises</li> </ul>
Evaluation	<ul style="list-style-type: none"> <li>• Provide printed copies of the evaluation forms, preferably in a folder and collect at the end of each session</li> <li>• Process evaluation forms on same day to feed into recap session on the following day</li> </ul>
Group Work	<ul style="list-style-type: none"> <li>• Assign person to lead group work session</li> <li>• Identify resource persons for groups beforehand and assign at least one person per group</li> <li>• Discuss what is expected from group work beforehand with a worked example</li> </ul>
Post-workshop	<ul style="list-style-type: none"> <li>• Follow up with participants/institutions for more in-depth workshop</li> </ul>

## Annex

### Annex 1: Agenda

#### **Health and the Wealth of Evidence: A workshop on using Health technology Assessment (HTA) for priority setting in Indonesia, April 25-29, 2016**

##### **Objective**

1. To increase awareness on HTA and its role in decision making.
2. To build HTA capacity to generate evidences in universities and research institutes.
3. To support MoH in identifying potential partners (universities and research institutes) in HTA program.
4. To initiate national and international collaboration and networking on HTA.

##### **Methods**

1. The workshop will be organized over 4 and a half days, in the form of presentations, discussions, case studies and group work.
2. HTA proposal development: Participants to work in groups to apply lessons learned and develop a proposal to present on the last day of the workshop.
3. Facilitators for the workshop will be from HITAP, Mahidol University, NICE International, York and University of Indonesia.

##### **List of participants (35 - 40 participants):**

1. PIC InaHTAC (5 participants)
2. National Institute of Health Research and Development (NIHRD), MoH (5 participants)
3. University of Indonesia, Jakarta (10 participants)
4. University of Gadjah Mada, Jogjakarta (5 participants)
5. University of Airlangga, Surabaya (5 participants)
6. University of Hassanuddin, Makassar(5 participants)

**Location:** JS Luwansa Hotel, Jalan Rasuna Said, Jakarta

##### **Structure of workshop:**

- Introduction to HTA: Overview & Policy application (1 lecture session)
- Diagnostics and Clinical trials (2 lectures session)
- Research methods (3 lecture sessions + 2 practical exercise session)
- Measuring healthcare costs and outcomes (2 lecture sessions + 2 practical exercise sessions)
- Economic Evaluation in Health and Economic Modelling (1 lecture session + 1 practical exercise session)
- Decision Rules (1 lecture session)
- Uncertainty Analysis (1 lecture session)

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- Social and Ethical Considerations for Priority Setting (1 lecture session)
- Application of Economic Evaluation (1 Panel discussion)

#### General Points:

- Recap of topics covered the previous day (1/2 an hour in the morning)
- Exercises will be led by facilitator with assistance from HITAP staff and others
- Group work on HTA proposal development (One hour at end of day)
- Quiz at the beginning to gauge knowledge of HTA and, possibly, at the end to assess knowledge gained during the workshop
- Evaluation forms to be completed by participants at the end of each module. HTA Protocol Development module to be evaluated at the end of the workshop.

#### Detailed Agenda:

Time	Topic	Responsible Person	Notes
<b>Day 1: Monday, April 25, 2016</b>			
8:30 – 9:30	Opening ceremony Remarks by Secretary General and MoH Remarks by WHO Representative	Dr Untung Sutarjo Dr Jihane Tawilah	
9:30 – 10:00	Introduction of the Participants and Workshop Facilitators/Teachers Housekeeping	Dr. Yot (HITAP)	
10:00 – 10:30	Introduction to HTA: Overview	Francis Ruiz (NI)	Discuss HTA link with policy and how it is part of the larger system. Provide examples from LMICs. Focus on practical aspects over theory, going beyond benefits package.
<b>10:30 – 10:45</b>	<b>Coffee Break</b>		
10:45 – 11:00	Introduction to HTA: Policy Application of vaccine adoption	Dr. Raymond Hutubessy (WHO)	Example of the HPV vaccination across countries
11:00 – 12:00	Identifying Research Questions and Scope	Dr Yot (HITAP)	Includes 30 minute exercise on investment/disinvestment
<b>12:00 – 13:00</b>	<b>LUNCH</b>		
13:00 – 14:30	Systematic Review	Waranya (HITAP)	
<b>14:30 – 14:45</b>	<b>Coffee break</b>		
14:45 – 16:30	Practical Exercise on Systematic Review	Waranya (HITAP) + Others	Need internet for session

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Time	Topic	Responsible Person	Notes
16:30 – 17:30	Group Work: Development of HTA proposal	Alia & Saudamini (HITAP)	Introduction of guide Sample HTA proposals presented by HTAC
<b>Day 2: Tuesday, April 26, 2016</b>			
8:30 – 9:00	Recap of Day 1	Prof Sudigdo	
9:00 – 10:30	Meta-analysis	Dr. Montarat (Mahidol University)	Moderator: Prof Budi Hidayat Participants to download and install RevMan 5
<b>10:30 – 10:45</b>	<b>Coffee break</b>		
10:45 – 12:00	Practical Exercise on Meta-Analysis	Dr. Montarat (Mahidol University) + Others	
<b>12:00 – 13:00</b>	<b>LUNCH</b>		
13:00 – 14:30	Measuring Outcomes	Dr. Montarat (Mahidol University)	Standard Gamble, Time trade off, EQ 5D
<b>14:30 – 14:45</b>	<b>Coffee Break</b>		
14:45 – 16:30	Practical Exercise on Outcome Measures	Dr. Montarat (Mahidol University) + Others	
16:30 – 17:30	Group Work: Development of HTA proposal	Alia & Saudamini (HITAP)	Background of studies and timeline
<b>Day 3: Wednesday, April 27, 2016</b>			
8:30 – 9:00	Recap Day 2	Prof Budi Hidayat	
9:00 – 10:30	Costing Healthcare	Prof. Usa (Mahidol University)	Examples of costing in Thailand
<b>10:30 – 10:45</b>	<b>Coffee Break</b>		
10:45 – 12:00	Practical Exercise on Costing	Prof. Usa (Mahidol University)+ Others	
<b>12:00 – 13:00</b>	<b>LUNCH</b>		
13:00 – 14:30	Health Economic Evaluation & Economic Modelling	Prof. Usa (Mahidol University)	Decision tree and Markov models with simple examples
<b>14:30 – 14:45</b>	<b>Coffee Break</b>		
14:45 – 16:30	Exercise on Economic Modelling	Prof. Usa (Mahidol University) + Others	
16:30 – 17:30	Group Work: Development of HTA Proposals	Alia & Saudamini (HITAP)	Methods
<b>Day 4: Thursday, 28 April, 2016</b>			
8:30 – 9:00	Recap Day 3	Prof Hasbullah	

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Time	Topic	Responsible Person	Notes
9:00 – 10:00	Decision Rules	Dr Andrew Mirelman (York) Dr. Yot (HITAP)	Theories and experience in UK (Andrew M) and Thailand (Dr. Yot)
<b>10:00 – 10:15</b>	<b>Coffee Break</b>		
10:15 – 11:15	Uncertainty Analysis	Francis Ruiz (NI)/ Dr Andrew Mirelman (York)	
11:15-12:00	Social and Ethical Considerations for Priority Setting	Alia Luz (HITAP)/Carleigh Krubiner (Berman Institute of Bioethics, JHU)	Plan for teleconference/Skype Groupwork
<b>12:00 – 13:00</b>	<b>LUNCH</b>		
13:00 – 14:30	Diagnostics and exercise	Prof Edi Raharjo	
<b>14:30 – 14:45</b>	<b>Coffee Break</b>		
14:45 – 16:00	Clinical Trials and exercise	Prof Iwan Dwiprahasto	
16:00 – 16:30	Publishing health economic evaluation papers	Dr Yot (HITAP)	
16:30 – 17:30	Group Work: Development of HTA Proposals	Alia & Saudamini (HITAP)	Budget estimates and presentation preparation
<b>Day 5: Friday, 29 April, 2016</b>			
8:30 – 9:00	Recap of day 4	Dr Dewi (WHO)	
9:00 – 10:00	Group Presentations on HTA Proposals for Indonesia by participants and comments by faculty members and invited members from HTAC and/or MoH	Dr. Yot (HITAP)	
<b>10:00 – 10:15</b>	<b>Coffee Break</b>		
10:15 – 11:15	(Continued) Group Presentations on HTA Proposals for Indonesia by participants and comments by faculty members and invited members from HTAC and/or MoH	Dr. Yot (HITAP)	
11:15 – 12:15	Panel discussion on the policy use of economic evaluation at the global and country level	Moderated by Dr. Yot (HITAP) Speakers: Raymond (WHO)/ Prof. Sudigdo (HTAC)/ Dr. Yot (HITAP)	Raymond (Global: please prepare slides) Prof Sudigdo (share Indonesian experience) Time: 5-10 mins per person

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Time	Topic	Responsible Person	Notes
			Dr. Yot (Country level: share Thai experience)
12:15 – 12:30	Conclusion of the Workshop	Dr. Dewi (WHO)	

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Annex 2: List of Participants

No.	Name	Affiliation
1	dr. Donald Pardede, MPPM	SAM Ekonomi Kesehatan
2	dr. Trisa Wahjuni Putri, M.Kes	Plt. Kapus PJK
3	dr. Kalsum Komaryani, MPPM	Kabid Jamkes PPJK
4	drg. Armansyah, MPPM	Kabid EEPK PPJK
5	Herlinawati, SKM, M.Sc (PH)	Kasubbid PTK, PPJK
6	Syafransar, SKM, MPPM	Kasubbid Analisis EEPK, PPJK
7	Ranti Dewi, SKM	EEPK PPJK
8	Fatma Rahmi	EEPK PPJK
9	Sariman	EEPK PPJK
10	Prof. dr. Sudigdo Sastroasmoro, Sp.A(K)	HTA
11	Prof. Iwan Dwi Prahasto, M.Med, PhD	FK UGM
12	Dr. drg. Mardiaty Nadjib, M.Sc	Lektor Kepala FKM UI
13	Prof.Dr.dr. Alimin Maidin, MPH	Guru Besar FKM UNHAS
14	Prof.Dr.dr. Siti Setiati, Sp.PD(K)	Ketua CEEBM RSCM / FK UI
15	Siti Rizny Fitriana Saldi, Apt, MSc	CEEBM RSCM / FK UI
16	dr. Eka Dian Safitri, Sp.THT-KL	CEEBM RSCM / FK UI
17	dr. Yupiter Pitoyo, Sp.THT-KL	CEEBM RSCM / FK UI
18	Santi Purna Sari, M.Si, Apt	Fakultas Farmasi UI
19	Dra. Retnosari Andrajati, PhD, Apt	Fakultas Farmasi UI
20	Vetty Yulianti P, S.Si, MPH	Asisten Ahli FKM UI
21	Amila Megraini SE, MBA	Staf Pengajar FKM UI
22	Anggun Nabila, AAK, SKM, MKM	Staf E-Learning Studi KARS
23	Ery Setiawan SKM	Asisten Peneliti PKEKK, FKM UI
24	Septiara Putri SKM, MPH	Asisten Peneliti PKEKK, FKM UI
25	drg. Agus Sugiharto, MARS	Ilmu Kesehatan Komunitas, FK UI
26	dr. Levina Chandra, MPH	HTA / PPJK
27	Dr.Dra. Erna Kristin, Msi, Apt	Lektor Kepala Dept. Farmakologi Terapi, FK UGM
28	dr. Woro Rukmi Pratiwi, M.Kes, Sp.PD	Lektor Dept. Farmakologi Terapi, FK UGM
29	Tri Murti Andayani, Sp.FRS, PhD, Apt	Ka. Dept. Farmakologi & Farmasi Klinik, Fakultas Farmasi UGM
30	Dr.Dwi Endarti, PhD, Apt	Sekretaris Program Studi S2 Ilmu Farmasi, Fakultas Farmasi UGM

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31	dr. Dwi Aris Agung Nugrahaningsih, MSc,PH	Lektor Dept. Farmakologi Terapi, FK UGM
32	Dr.Dra.Diah Ayu Puspandari, Apt, MBA,Mkes	Sekretaris Eksekutif Pusat KPMK FK UGM
33	dr. Detty Siti Nurdiati, MPH, PhD, SpOGK	FK UGM
34	Ansariadi SKM, M.ScPH, PhD	Ketua Departemen Epidemiologi FKM UNHAS
35	Nur Arifa, SKM, MA	Dosen Dept. Manajemen RS FKM UNHAS
36	Dr. Fridawaty Rivai, SKM, M.Kes	Dosen Dept. Manajemen RS FKM UNHAS
37	dr. Husnul Mubarak, Sp.KFR	Dosen Dept. Kedokteran Fisik & Rehabilitasi, FK UNHAS
38	dr. Marhaen Hardjo, PhD	Ketua Dept. Bio Kimia FK UNHAS
39	Prananda Surya Airlangga,dr, Sp.An,KIC,M.Kes	Staf SMF Anestesiologi & Reanimasi, RSUD dr. Soetomo
40	Edward Kusuma, dr,Sp.An, KIC, M.Kes	Staf SMF Anestesiologi & Reanimasi, RSUD dr. Soetomo
41	Anna Surgean Veterini, dr,Sp.An, KIC	Staf SMF Anestesiologi & Reanimasi, RSUD dr. Soetomo
42	dr. Frans Dany	Peneliti Puslitbang Biomedis dan Teknologi Dasar Kesehatan
43	Ida Susanti, ST, M.Si	Peneliti Puslitbang Biomedis dan Teknologi Dasar Kesehatan
44	Ully Adhie Mulyani, S.Si,Apt, M.Kes	Kasubbid Kefarmasian dan Alat Kesehatan, Balitbangkes
45	Anggita Bunga Anggraini, S.Si, Apt	Peneliti, Balitbangkes
46	dr. Yusuf Subekti	EEPK PPJK
47	drg. Lusiana Siti Masytoh	EEPK PPJK
48	dr. Eva Herlinawaty	EEPK PPJK
49	Candra Irawan, SE.As	EEPK PPJK
50	Widya Suryaningsih, SKM	EEPK PPJK
51	Nur Atika, SKM	HTA / Pusat PJK
52	Roni Syah Putra, Apt, M.Kes	Administrasi Kesehatan, Ditjen Kefarmasian dan Alat Kesehatan

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53	dr. M. Riki Iqbal	Staf Subdit Yankes Rujukan RS Pendidikan, Kemenkes
54	dr. Ryan Rachmad Nugraha	IKM FK UNPAD
55	dr. Muhammad Ilyas, SpOK	IKK FK UI

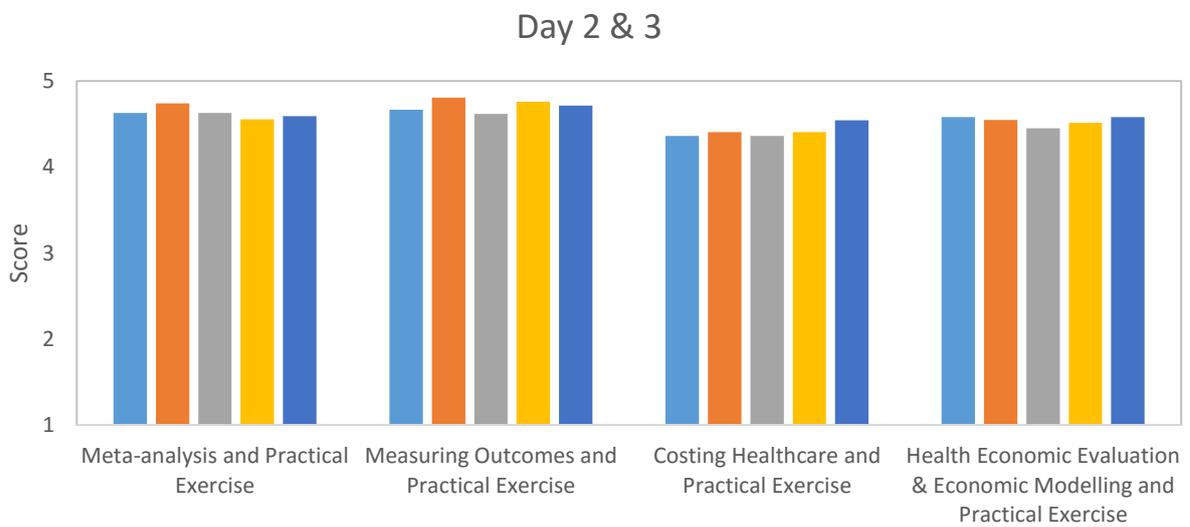
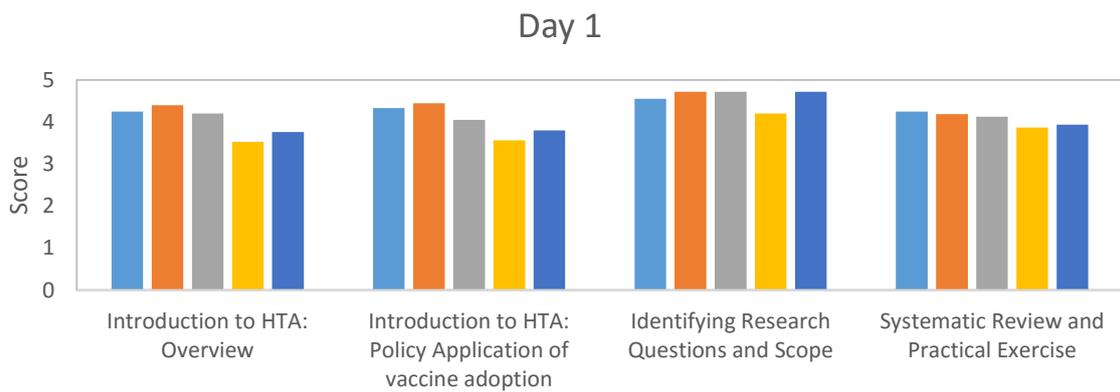
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Annex 3: Additional Graphs and Tables on Results

Results by session in response to following question:

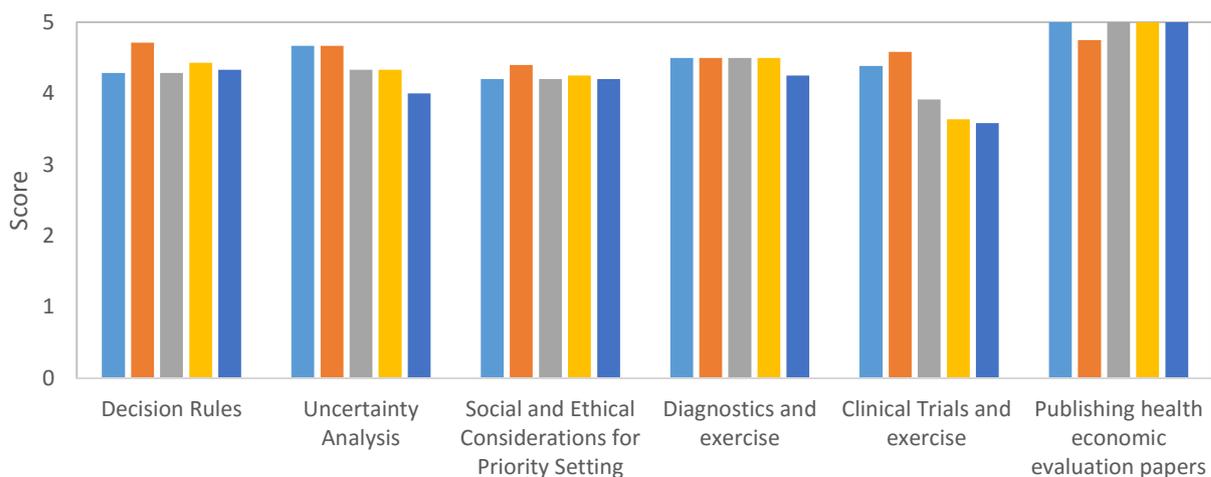
Please indicate you level of agreement with the following statements:

- My knowledge on the topic has increased
- The trainer was knowledgeable about the topic
- Participation and interaction was encouraged
- The materials distributed were helpful
- The practical session was useful in enhancing my understanding of the content



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Day 4



**Table: Number of respondents by session**

Session Title	Number of respondents*
Introduction to HTA: Overview	22
Introduction to HTA: Policy Application of vaccine adoption	22
Identifying Research Questions and Scope	18
Systematic Review and Practical Exercise	16
Meta-analysis and Practical Exercise	27
Measuring Outcomes and Practical Exercise	21
Costing Healthcare and Practical Exercise	23
Health Economic Evaluation & Economic Modelling and Practical Exercise	31
Decision Rules	7
Uncertainty Analysis	3
Social and Ethical Considerations for Priority Setting	5
Diagnostics and exercise	4
Clinical Trials and exercise	13
Publishing health economic evaluation papers	4

\*Number of respondents may vary for each question

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Annex 4: Photos



**Photo 1:** Dr. Donald Pardede, head of the P2JK, gives the introductory address to the workshop.



**Photo 2:** Dr. Yot Teerawattananon engages with the participants during a discussion session.

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**Photo 3:** The participants listen intently to the workshop presentations.



**Photo 4:** A participant fills out the quiz handed out during the workshop to test their knowledge of the Indonesian health system and HTA.

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**Photo 5:** Dr. Yot, Waranya Rattanvipapong, and Alia Luz speak to Dr. Dewi Indriani, their main contact in the WHO Indonesia country office.



**Photo 6:** Dr. Francis Ruiz of NICE International provides advice and mentorship on the HTA protocol development to his assigned group.

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**Photo 7:** Dr. Dewi and Dr. Raymond Hutubessy from the WHO Headquarters confer.



**Photo 8:** Participants, along with Dr. Andrew Mirelman, listen to a presentation on the protocol development.

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**Photo 9:** Participants listen to a presenter on an investment and disinvestment exercise.



**Photo 10:** Participants listen to a presenter on an investment and disinvestment exercise – particularly on what are the barriers and who are the stakeholders.

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**Photo 11:** Participants work with a model to estimate cost-effectiveness of healthcare interventions.



**Photo 12:** Dr. Montarat Thavorncharoensap and Dr. Usa Chaikledkaew introduce the Mahidol University program on HTA.

Health and the Wealth of Evidence:  
A workshop on using Health technology Assessment (HTA) for priority setting in Indonesia

Annex 5: Training Materials

Training materials can be found on this link:

[https://drive.google.com/open?id=0B7vc4MS5\\_gfaeENGVm4zN1B4NGM](https://drive.google.com/open?id=0B7vc4MS5_gfaeENGVm4zN1B4NGM)