Visit to the Department of Health, Philippines, to support Health Technology Assessment

4-9 June 2019

Mission Report

Health Intervention and Technology Assessment Program (HITAP)

Abbreviations

AHEAD	Advancing Health Through Evidence-Assisted Decisions
ART	Anti-retroviral treatment
BIA	Budget impact analysis
BIHC	Bureau of International Health
BMGF	Bill and Melinda Gates Foundation
CD4	Cluster of differentiation 4
CKD	Chronic kidney disease
DOH	Department of Health
DDC	Department for Disease Control
DoH	Department of Health, Philippines
DoH-PD	Pharmaceutical Division of the Department of Health
DOST	Department of Science and Technology
EPI	Expanded Programme on Immunization
FDA	Food and Drug Administration
FEC	Formulary Executive Council
GHD	Global Health Development of Imperial College London
GIS	Geographic Information Systems
ICL	Imperial College London
HARP	HIV/AIDS Registry of the Philippines
HD	Hemodialysis
HITAP	Health Intervention and Technology Assessment Program
HIV/AIDS	Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome
HPV	Human Papilloma Virus
HTA	Health technology assessment
iDSI	International Decision Support Initiative
ISPOR	International Society for Pharmacoeconomics and Outcomes Research
KT	Kidney Transplant
MoU	Memorandum of Understanding
NICE	National Institute of Health and Care Excellence
NHSO	National Health Security Office
NKTI	National Kidney Transplant Institute
NUS	National University of Singapore

PCV	Pneumococcal conjugate vaccine
PD	Peritoneal dialysis
PMTCT	Prevention of mother-to-child transmission
PNDF	Philippine National Drug Formulary
RC	Reference Case
RRT	Renal Replacement Therapy
STEP	Sentro ng Pagsusuri ng Teknolohiyang Pangkalusugan
UCS	Universal Coverage Scheme (in Thailand)
UHC	Universal Health Coverage
UNICEF	United Nations Children's Fund
WHO	World Health Organization

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Executive summary

This is a promising time for the advancement of evidence and use of health technology assessment (HTA) in the Philippines. The HTA unit, STEP (*Sentro ng Pagsusuri ng Teknolohiyang Pangkalusugan*), is currently conducting three studies to support national decision-making: 1) the economic evaluation of renal replacement therapy (RRT) options; 2) the economic evaluation of human immunodeficiency virus/acute immune deficiency syndrome (HIV/AIDS) screening for pregnant women; and, 3) the feasibility and budget impact study of ultrasound screening. These studies are paving the way for new ones that are in the pipeline. The Philippine Pharmaceutical Division, under which the STEP is housed, is also preparing the HTA process and methods guidelines, which will form the basis for all HTA activities in the country.

A study visit was conducted to the Philippines on June 4-9, 2019 by a team from the Health Intervention and Technology Assessment Program (HITAP) to support the final stakeholder consultation and write-up of the RRT study as well as the progress of the human immunodeficiency virus/acute immune deficiency syndrome (HIV/AIDS) and ultrasound screening studies' proposals. This visit was conducted under the aegis of the United Nations Children's Fund (UNICEF) and the International Decision Support Initiative (iDSI). Further, the HITAP team also provided support to developing the first drafts of the process and methods guidelines. Finally, the partners discussed future collaborations between the Philippines and Thailand. These will be through: signing of a Memorandum of Understanding (MoU) outlining the partnership; capacity building for Philippine partners at all levels (from policy makers to providers to researchers); "learning-by-doing" support to researchers through mentorship and supervision support for studies being conducted for use in policy; and continued support for growth in the long-term.

Introduction

HTA has a long history in the Philippines. Health Technology Assessment (HTA) development began when PhilHealth, the national healthcare insurance payer, established an HTA Committee in 1999 to inform benefits package development and the pharmaceutical reimbursement list. This was especially important since the universal healthcare insurance system serves the population of more than 100 million in the country. However, HTA as a tool for priority-setting began gaining traction in 2012 under the Pharmaceutical Division of the Department of Health (DoH-PD). The unit sought to improve capacity to conduct HTA and support decision-making for healthcare. With support from the National Institute of Health and Care Excellence (NICE) International (now the Global Health and Development Team or GHD in Imperial College London) and the Health Intervention and Technology Assessment Program (HITAP), Ministry of Public Health, Thailand, through the International Decision Support Initiative (iDSI), several demonstration projects were completed, specifically the economic evaluations of pneumococcal conjugate vaccine (PCV) and human papillomavirus vaccine (HPV) for inclusion in the Expanded Program for Immunization (EPI). In the next two years of iDSI support, the Filipinos also joined HTAsiaLink and supported several activities to facilitate HTA development, such as high-level consultations and trainings for different HTA users as well as researchers.

A landscape analysis forum of HTA use in the country was conducted in 2016.[1] The forum found HTA-like mechanisms in four areas: the health services under PhilHealth benefits package, the drugs under the DoH-PD, medical devices under the Food and Drug Administration (FDA), and vaccines under the Department of Health Family Health Office. The forum also produced a framework of seven principles to govern the HTA process and four criteria to evaluate the different interventions under the framework; it set the stage for the creation of a new HTA unit in 2017.

An HTA unit called the HTA Study Group, STEP (*Sentro ng Pagsusuri ng Teknolohiyang Pangkalusugan*), was established to conduct HTA and serve as a secretariat to set up the new process. This HTA unit under the Health Policy Development and Planning Bureau as part of the Advancing Health Through Evidence-Assisted Decisions (AHEAD) Fellowship Program of the Department of Science and Technology – Philippine Council for Health Research and Development, conducted several assessments and aimed to operationalize the United Nations Children's Fund (UNICEF) approach (for an HTA process that was designed for and along with PhilHealth), and bring coherence to the different HTA activities being conducted in the country. This is especially important since the Universal Health Coverage (UHC) law with a clause for HTA was signed in February 2019. Since the end of 2018 and up to the present, the unit has committed to complete the UNICEF project objectives, which included a

[1] HTA for Reimbursement: Landscape Analysis Workshop Report, 2016

pilot project, capacity building, write-up of the methods guideline, and high-level awareness-raising workshops. The unit was eventually transferred to the DOH-PD of the Health Regulations Team in 2019.

The "Technical Assistance - Health Technology Assessment Capacity Building in the Philippines" is a UNICEF Project with GHD and HITAP. This project aims to advance institutionalization of evidence in the Philippines through capacity-building and conducting studies to support decision-making. The project has three main deliverables: a situational analysis of HTA in the Philippines, capacity-building among key HTA stakeholders, and the support of a study on a priority issue. The results from the study will be showcased at a dissemination event. A training on HTA was conducted for all staff in the HTA unit as well as the broader audience in January 2019.[2]

The HIV/AIDS screening of pregnant women, the priority issue identified for the UNICEF project, seeks to understand whether a universal screening policy will be cost-effective and affordable in the Philippine context. This study will be used to decide on PhilHealth's inclusion of the screening of HIV/AIDS in the current antenatal package. To discuss the details of the proposal and plan for the conduct of the study, three fellows, Ms. Dana Bayani, Mr. Geovin Uy, and Ms. Bernadette Almirol, visited the HITAP offices, Bangkok, Thailand on April 17-19, 2019. The visit also provided the time to conduct preliminary literature reviews on the parameters and methods to be used.

Two other studies, the economic evaluation of renal replacement therapy (RRT) and the feasibility and budget impact of ultrasound screening, were also discussed during the visit. The RRT study was already completed and the visit was an opportunity to discuss the model, create the presentation for stakeholder consultations, and begin preparations for the policy brief, HTA report, and manuscript. RRT patient quality of life analyzed through a regression analysis was also reviewed. The ultrasound study was still in the proposal stage, though the questionnaires for use in one of its components (a survey of potential users) was revised. These studies are supported through iDSI, which aims to support HTA development in low and middle income countries. HITAP and GHD supported the Philippine team to join the HTAsiaLink conference in Seoul, South Korea, from April 24-27, 2019, where the RRT study was also presented and was recognized as the best presentation in the Economic Evaluation category.

On June 4-6, 2019, a visit to the Philippines was conducted to support: the final stakeholder consultation for the RRT study; the model creation of the HIV/AIDS study and updates for the ultrasound study; the discussion on the methods and process guidelines; and the planning for HTA

[2] Technical Assistance for Health Technology Assessment Capacity building in the Philippines: Inception Report, Imperial College London Global Health and Development Team, December 2018

support to the Philippines in the coming years (see appendix A: agenda). Dr. Yot Teerawattananon, Ms. Chutima Kumdee, and Ms. Alia Luz participated in the visit, along with the nephrologist and dialysis expert, Dr. Piyathida Chuengsaman. The following report provides a summary of the activities.

HTA Studies in Progress

The Economic Evaluation of Renal Replacement Therapy

HITAP staff attended a stakeholder consultation and review of PhilHealth Benefits Policy on Hemodialysis (HD) and RRT, conducted on 4 June 2019 at the National Kidney Transplant Institute (NKTI). There were approximately 50 stakeholders in the consultation meeting, comprising policy makers (PhilHealth and Department of Health or DOH), health professionals, NGOs (such as the Philippines Society of Nephrology), academics, as well as kidney patients. The stakeholder consultation meeting was separated into four parts to provide a background on chronic kidney disease (CKD) in the Philippines, policy recommendations on results of the economic evaluation of RRT in the Philippines, and a facilitated discussion (see appendix B: agenda). These are described below:

1. Background on chronic kidney disease in Philippines

Dr. Adeline Mesina gave participants an overview of the healthcare scheme as well as its benefits and showed the burden of kidney disease in the Philippines from the past 20 years to the present. Both incidence and prevalence of kidney disease have increased slightly. There are challenges in implementation of a dialysis policy. Renal dialysis policy, called the “Z package”, was developed in 2002 to respond to the expansion of the number of health centers and specialists as well as the creation of a system for reimbursement. Nowadays, 318 accredited free-standing dialysis clinics in the Philippines can provide renal dialysis. Treatment of CKD stage 5 through HD as well as peritoneal dialysis (PD)is included in the Z package as a benefit. The number of claims with PhilHealth for renal dialysis has increased every year from 2015-2019. HD is the treatment with the highest number of claims, followed by peritoneal dialysis PD, and kidney transplant (KT).

There was a discussion on the low number of reimbursements in PD, although PD has been implemented for a few years in the Philippines. Two potential causes were highlighted: 1) PD is not the first policy, so nephrologists prefer HD first; 2) the number of healthcare facilities providing HD are not enough to cover all patients in Philippines, resulting in even less awareness on PD given the limited number of facilities offering any kind of dialysis in the country.

2. Policy recommendation on treatment of chronic kidney disease in the Philippines

Ms. Diana Beatriz Bayani presented the results of the economic evaluation of PD first policy, and PD plus KT, compared to the existing HD. The results show that the PD first policy is the most cost-effective, followed by the PD plus KT. Hence, PhilHealth should consider shifting to the PD first policy and promote KT among existing HD patients (see appendix C: policy brief).

It was observed that KT has the highest cost among the three options because it is a lifetime cost comprising both treatment and rehabilitation. Given that KT could also prolong life, this leads to higher cost of rehabilitation. Though HD has the worst outcome, there may be difficulties in shifting to PD since HD was introduced first to the patient; there is lack of understanding among patients of the different modalities; and, many patients are already on HD therefore may not want the experience of shifting to PD.

3. Experience of Thailand PD policy in the context of universal health coverage (UHC)

Dr. Piyatida Chuengsaman, a nephrologist at Banphaeo General Hospital in Thailand and a key person endorsing the PD first policy in Thailand, presented how the country initiated a PD first policy under the Universal Coverage Scheme (UCS) from early 2008. End-stage renal disease patients receive treatment with PD first with full reimbursement. Currently, there are more than 20,000 patients accessing PD treatment. PD is acceptable among Thais because it can improve survival years and quality of life. Aside from better health outcomes, it is also cost saving in terms of reducing transportation costs (from the patient's perspective) and medical cost (provider's perspective) which is suitable in Thailand, an upper middle-income economy with a shortage in medical personnel. The National Health Security Office (NHSO), Thailand's UHC manager, has collaborated with the National Assembly Thailand Post Office (Thai Post) to deliver all PD materials to patients at home every month. NHSO allows a kidney disease patient 4 bags of PD solution per day for full reimbursement.

It was suggested that if a PD first policy was implemented in the Philippines as it was in Thailand, PhilHealth should not limit the number of PD solution bags for reimbursement or at least provide the same number as in Thailand, in order to make the system more flexible. In addition, the management on waste bags should be applied as well to ensure that the local government properly disposes the needle, catheter, and plastic bags infectious wastes.

4. Discussion on policy recommendations and implementation of chronic kidney disease in the Philippines

In a discussion panel, five key persons were invited to share their opinions on policy recommendations and implementation of CKD related to results of the economic evaluation study.

Dr. Yot Teerawattananon, who led the study on the cost-utility analysis of a PD first policy in Thailand, shared his experience and noted in the early days, nephrologists made several arguments against the PD first policy. They said it was not appropriate to let patients do PD by themselves at home due to safety. However, the PD first policy has been implemented successfully in Thailand since 2008. Further, there were inadequate devices available for HD resulting in many patients without access to treatment if there was no PD. In the Philippines, only 4 of the country's 7,107 islands have centres

that can provide HD. Therefore, PhilHealth as a health purchaser of the Philippines should consider the PD first policy, which can learn from Thailand's and Indonesia's experience; in the case of the latter, like the Philippines, there is inadequate HD available to those living on other islands.

Dr. Nerissa Santiago, the Vice President of PhilHealth, was concerned that the PD first policy needs significant budget investment to implement in the beginning. However, she recognized the importance of a health economic evaluation as the UHC law in the Philippines requires that kind of study to prioritize interventions for developing the benefits package.

Dr. Romina Danguilan, a representative from NKTI, shared her treatment experience on patients with kidney disease at NKTI. In her opinion, she prefers to treat patients with KT first, followed by HD and PD. PD also requires several years of treatment compared to KT. Ninety percent of patients come to the hospital for HD because they lack confidence to do PD themselves at home. However, she is convinced that evidence can help doctors and patients accept PD when they show better health outcomes. Meanwhile, both doctors and patients need to be more trained and educated for PD.

Dr. Elizabeth Roasa, president of the Philippine Society of Nephrology, appreciated that the study conducted by the HTA unit under the DOH is valuable. Now, there is a cost-effectiveness study in the Philippine setting and Thailand's experience demonstrates that it is possible to implement PD. The next step for the Philippines is to estimate number of health facilities that can provide PD and find another supply for distributing the PD materials. Also, the number of trained surgeons for KT in the Philippines should be increased. From her point of view, PhilHealth should increase the providers by training nurses or nephrologists; they should not determine providers based on the readiness of the hospital alone, because there is a limited number of accredited hospitals for PD in the Philippines. Moreover, she suggested it would be great to have a projected budget impact of the PD plus KT policy.

The last speaker was from the Department of Disease Control (DDC) who discussed three things about the PD first policy – education, empowerment, and innovation. Education amongst the general population about the PD first policy and PD plus KT must happen. Empowerment for the patient who can pursue a better quality of life. Innovation of policy makers in terms of health financing and as well as in more access to PD and KT. The Philippines should learn from the experiences of Indonesia where there are more islands and larger population.

On the second day (5 June 2019), HITAP provided academic advice on two HTA studies, a cost-utility analysis of HIV/AIDS testing among pregnant women in the Philippines and a feasibility and budget impact study of ultrasound screening as part of the antenatal care package. The team also discussed the next steps for the RRT study, namely: creating a new cost-effectiveness acceptability curve that details the outcomes; completing the policy brief with assistance from the HITAP communications

team; completing the manuscript and working with HITAP for its publication; and writing-up the HTA report. Future studies for collaboration with HITAP were also discussed and planned.

The Economic Evaluation of HIV/AIDS Screening for Pregnant Women

The study parameters were discussed, specifically: the use of the Asian Epidemic Model (which predicts 50 new pregnant women in the Philippines annually) starting from 2019 to predict the total number of pregnant women during the study time period; costing information will be gathered using standard costing methodology from grey literature and national referral centers; drug price reference index in the Philippines for anti-retroviral treatment (ART) costs using the median and standard errors; pediatric HIV/AIDS treatment costs taken from literature and converted to the Philippine setting; potentially using proxy data from Hepatitis B screening and also a study on Hepatitis C in the future (e.g. if there will be counseling services, then the cost can be divided by two or three amongst these two and HIV/AIDS programs); and, finally, including cases averted for women and babies as one of the outcomes. Inclusion of substitute feeding to reduce transmission (given that breastfeeding has shown to increase maternal-to-child HIV/AIDS transmission rates) as a policy option was also recommended. While the study does not seek to promote substitute feeding in the general population, it may be a very effective strategy for HIV/AIDS positive mothers who could also be stigmatized if they continue to breastfeed.

The Feasibility and Budget Impact of Ultrasound Screening

There are three sections of the study: overview or umbrella review of the effectiveness and safety of ultrasound screening; budget impact of the screening implementation which includes initial investment as well as treatment costs; and, a survey of women's knowledge, perception, and acceptance of ultrasound screening. Having key research questions and full discussion of the framework in the proposal was recommended. For the budget impact, the total cost of the conditions that ultrasound can detect (using Institute for Health Metrics and Evaluation or IHME data) was recommended. Finally, for the systematic review, a pooled risk ratio was recommended for the prevalence and cost.

Future Studies

There are two studies in the pipeline for 2019: assessment on intravitreal injections for wetAMD (age-related macular degeneration), DME (diabetic macular edema), and RVO (retinal vein occlusion); and,

insulin analogue as treatment for type 2 diabetes. For the former, this will include a review of evidence for safety, budget impact analysis, and survey of HTAsiaLink and iDSI partners for use of off-label indications in the reimbursement processes in different countries. For the latter, the team will work closely with HITAP to utilize their expertise and learn from other studies conducted in the region. These studies may be included as part of iDSI work over the coming couple of years.

Prioritization is now finishing up for the HTA process for drugs. If more studies are considered, then the topics can be shared with HITAP who may be able to share similar reports with the STEP HTA unit. There is interest in disinvestments in the next couple of years. For a regional EQ-5D Asian value set (funded by the Japanese government) proposed under HTAsiaLink, the Philippines was nominated as one of the countries of focus. STEP will inform HITAP who will be the focal point to be part of the international steering committee.

HTA process and method guidelines development

HITAP supported the STEP HTA unit under DOH in Philippines on the HTA process and method guidelines development. The first draft of the HTA process was shared with the HITAP team in order to provide technical advice. The suggestions to improve the HTA process guideline as follows.

1. Structure

- The core committee, focusing on approving the appraised studies for the policies that will be passed on to the decision makers, comprises of 9 members and one of them should sit in the sub-committees that may be classified by clinical practice, as described below. PhilHealth can be a part of the committee as a permanent member of the subcommittee to ensure that there is trust and linkage with the universal healthcare scheme. The committee can include external organizations, i.e. FDA and DDC.
- Sub-committees are classified into many groups by clinical expertise. They should be reviewed carefully to ensure a good representation for the number in each sub-committee as well as limit any overlaps (for instance, vaccine and promotion and prevention/device and procurement/medicine, drugs, and traditional medicine). Additionally, there should be two sub-committees looking at the methods and quality of study (e.g. Health Economics Working Group in Thailand) and considering preliminary result in terms of policy called “Decision Support Working Group.”
- Evidence Review Group (ERG) should be a group of people to conduct the study, with expertise on the study details, intervention, and disease. There are three rules should be set for the teams that will conduct HTA: it should accept and follow the HTA process and method guidelines; it should not be funded by pharmaceutical companies the year before and the year after they conduct the study; and the timeline of the HTA study types should also be revised.

2. Criteria

- Criteria should be used to ensure an explicit process for topic selection, e.g. prioritization criteria from Thailand’s experience where a scoring tool combining both quantitative and qualitative aspects including stakeholders’ judgment is used.

3. Stakeholders

- Representatives from industry involved in the HTA process should not be a single company, rather an association of companies of drug or medical devices, balancing between local and international companies.
- Local government units, patient groups and civil societies purely funded by the private sector should not be involved in the HTA process (except partly funded, e.g. less than 30%).

4. Process

- Submission of applications should be allowed for the whole year but topics may be prioritized only once a year (e.g. in January or beginning of fiscal year).
- The HTA unit, which will serve as a secretariat, should allocate at least three months for topic prioritization (reviewing and scoring), then have a half day or a full day meeting with stakeholders to have a short-list of topics to present to the HTA core and sub-committee members. The first part of the meeting, where presentations are made, can be public and second part of the meeting can be a closed meeting where core committee and HTA sub-committee members can finalize topics.
- Six to eighteen months should be allowed for conducting the economic evaluation.
- Appraisal of the assessment result should involve representatives from PhilHealth with an explicit decision on inclusion or exclusion of the new intervention in the benefits package. At this stage, the core HTA committee should consider the price negotiation process as well. This process can be more than one meeting and more than one day (up to 8 weeks).
- Industries may be asked to submit more than one price per unit volume to use in HTA studies under the conditions that the price can be lower than the agreed price but not higher than this in the future and that they must commit that the drug should be valid/available for at least 2-3 years.
- There are potential options to implement the recommendation from HTA studies in a more reasonable way, for instance, PhilHealth can set the reference price (also dosage and indication) based on the HTA evidence in order to reimburse; alternatively, PhilHealth may procure the drug at the central level.

5. Conflict of interest (COI)

- There are many committees and all of them must declare their conflict of interests in every meeting. (e.g. no gifts in kind or cash, cannot be sponsored or funded by industry, patients, and civil societies that are funded by industry). The members of these committees can be have some financial ties with private sector; however, such members may be excluded when there is a vote.
- During the HTA process, all stakeholders as well as committees should not be working in pharmaceutical companies. After one year of their appointment, members may be able to work with pharmaceutical companies.

6. Confidential information

- Members should not share any documents from the meeting in the next 5-10 years or even indefinitely.

7. Annex

- Useful information related to the HTA process should be included, such as submission forms, process diagrams, TORs, as well as COIs.

The current draft of the HTA methods guideline has been merged from the initial work of the University of the Philippines (UP) National Institute of Health (NIH) and the European Union (EU) Technical Assistance (TA) project. Comments from other partners such as GHD were also included. The HITAP team, led by Dr. Yot Teerawattananon, gave some comments to the draft, which are summarized below.

- The methods guideline should be more linked with the HTA process guideline: add that public consultation can be used to translate the policy question to a research question.
- Possible sources of data in the HTA method guidelines can include both the type and source of data. HITAP suggested tabulating information on classification and source.
- HITAP recommended that costing should be a part of economic evaluation but can be written separately as a sub-section.
- The current discount rate has a large range between 0-10%. It is likely that this will result in recommendations both for and against inclusion of the intervention based on the uncertainty analysis. The range for discounting commonly used in countries 0-6%, including Thailand.
- HITAP suggested mentioning that this guideline helps address methodological uncertainty.
- Face validation (after) and predicted model validation (preliminary study) should be included in the method guideline.
- HITAP suggested using the iDSI reference case (RC) instead of the Drummond checklist.
- The team could refer to the Global Health Cost Consortium Reference Case (GHCC RC) on the issue of adjusting inflation.
- The wording of the guideline is currently focused on drugs; it was suggested to make it more generic so as to be applicable to other technologies and interventions.

Moreover, there was debate on whether to make the threshold clear in the Philippines setting. In the Formulary Executive Council (FEC) guidelines, it is recommended to have an explicit threshold, which can be one-time GDP per capita. However, HITAP does not recommend having a threshold against GDP/GNI because it changes every year. Another suggestion is to have a fixed threshold. There is a

study planned for the Philippines which will determine both, a supply and demand side threshold. Nevertheless, this can remain consistent with previous studies.

Next steps for collaboration with the Philippines

HITAP and its partners will continue to be a resource for ongoing work. HITAP can either support on HTA alone, or HTA and other types of work, e.g. HTA and procurement. The Philippines' team has identified six areas for future work: primary care, benefits package development, payment reform, quality assurance, health information system, and governance. HITAP can continue supporting capacity building at all levels. This includes supporting HTA studies as well as providing training from experts. The Philippines' team is in the process of finalizing a plan for support along with the proposed three-year plan of activities which will submitted to the World Health Organization (WHO) (all assistance will go through their office). The team will share this plan with HITAP.

HITAP can provide support for the process and methods guidelines in the country. HITAP can join a consultation workshop planned in August 2019 along with relevant staff. HITAP suggested focusing on completing the RRT and HIV/AIDS studies before moving on to any drug or drug-related studies in 2019. Further, HITAP will continue to support these studies, including attending the stakeholder consultations after the studies are completed. HITAP can potentially continue to support the studies in the pipeline (mentioned in HTA Studies in Progress in the section above) through iDSI.

HITAP identified several activities that are in the pipeline in which Philippine partners can facilitate or be a part of:

- Capacity building for leaders, decision-makers, etc.: HITAP can host the Philippines' team to speak to decision-makers in Thailand and also connect them with partners in other countries in the region.
- Trainings:
    - Singapore Leadership Development Program (June 24-28, 2019, at the National University of Singapore or NUS): There will be a representative from the Philippines.
    - Singapore Real World Evidence training (July 24-25, 2019, at NUS): Proposal to include 2 Filipino HTA researchers.
    - HTA training (October 7-11, 2019, in Pondicherry, India): Potential to include 1 expert from the Philippines.
    - Workshop for vaccine economic evaluation with monitoring and evaluation, impact evaluation in Chennai or Delhi, India (proposed dates November 18-21, 2019): 1 Filipino partner proposed to be invited as a trainer.
    - Early next year, 2 trainings in NUS Singapore on advanced modelling (3-day course) and HTA to inform R&D.
    - HTA Training to be co-hosted between the DOH and NUS in Manila

- Potential of hosting HTAsiaLink in the Philippines in the future

Further, the HTA unit is set to grow larger (another 10 people) in the coming few months. Philippine partners can pursue long-term capacity building through fellowship programs, higher-education opportunities with HITAP and iDSI partners (e.g. NUS, Mahidol University, Hitotsubashi University, and Oxford University). One may explore the capacity needs of the Philippine partners through surveys and see how these can be supported.

Finally, a Memorandum of Understanding (MoU) is currently in the process of signing in August 2019 between Thailand and the Philippines. This will support all HTA activities between the two countries. Tit was noted that the UHC law mandates a transfer of the HTA unit from the DOH to the Department of Science and Technology (DOST) in 5 years. The unit will prepare a letter requesting formal advice from the Bureau of International Health (BIHC) on the process for the MoU.

Appendix A: Agenda of country visit to the Philippines

Time	Activity	Description	Person(s) Responsible
4th June 2019			
8:00 am - 12:00 nn	RRT Stakeholder Consultation	Objectives: 1. To learn about best practices in renal dialysis policies in the context of UHC 2. To present results of the economic evaluation of renal replacement coverage policies conducted by the HTA Unit 3. To discuss existing policies, recommendations and ways forward **see detailed agenda below*	RRT Team (Dana, Beej, Geovin) + PhilHealth staff (Dr Mel Santillan)
1:30 pm - 4:00 pm	Workshop on PD Implementation	Objective: To discuss issues (clinical, management, financial, service delivery) relating to peritoneal dialysis practice and policy implementation	Dr. Piyatida Cheungsaman
5th June 2019			
8:00 am - 4:00 pm	Consultation meeting on ongoing economic evaluation studies	Agenda: 1. To consult and discuss next steps on the HTA of ultrasound screening for pregnant women 2. To consult and discuss next steps on the HTA of HIV/AIDS screening for pregnant women 3. To finalize RRT manuscript and policy brief 4. To discuss queries re: other assessments	Beej Almirol, Geovin Uy, Joy Taneo, Telle Reyes and Dana Bayani
6:00 - onwards	Dinner at SM San Lazaro		
6th June 2019			

Time	Activity	Description	Person(s) Responsible
8:00 am - 10:00 am	Process Guideline Meeting	Agenda: 1. To present and discuss the initial draft of the process guideline	Joyce Pereña, Johanna Mallari, Kate Dunlao, Yen Genuino, Dr. Melissa Guerrero
10:00 am - 11:30 am	Work Plan and other matters	Points for discussion: 1. UNICEF TA next steps 2. Other areas for support a. PHIC top claims? b. PNF pipeline? c. Other proposed activities 3. MOU between DOH and MOPH 4. HTA Training in Jan 2020 a. Updates on LOI, MOU with SSHSPH, CPD and logistics-related matters b. Updates on speaker confirmation 5. Other training opportunities 6. Research collaboration a. EQ-5D for Asian population b. Threshold study with Prof. Nakamura c. EVORA	HTA Unit (all)
11:30 am - 12:30 pm	Meeting with DOST	Agenda 1. To share the role of HTA in UHC in Thailand, emphasizing the following points: a. What HTA is and what it isn't	Dr. Melissa, Dana, Yen, Joyce Pereña, Johanna Mallari, Kate

Time	Activity	Description	Person(s) Responsible
		b. Impact of HTA in Thai health system c. Governance of HITAP (semi-autonomous status) d. HTA process principles 2. To briefly discuss transition of HTA Unit to DOST	Dunlao, Telle Reyes
1:00 pm - 4:00 pm	Methods Manual Meeting	Agenda: 1. To review and revise the draft methods guide 2. To plan future consultations with relevant stakeholders	Telle Reyes, Yen Genuino, Dr. Melissa Guerrero, Dana Bayani *ICL team to phone in

Appendix B: Agenda of stakeholder consultation and training

Renal Replacement Therapy (RRT) Stakeholder Consultation and Training

On 5 June 2019 at National Kidney Transplant Institute (NKTI)

Time	Agenda and Speaker
8:00 AM – 8:30 AM	Registration
8:30 AM – 8:45 AM	Opening Ceremonies Prayer Welcome remarks Special Message from Honorable Congresswoman Angelina Tan Special Messages from DOH, PhilHealth Photo opportunity Introductions, Objectives, Design and Outputs of the Consultation *Dr. Lester Geroy, Facilitator*
8:45 AM – 9:05 AM	Renal Dialysis Coverage Policies: Past, Present and Future *Dr. Adeline Mesina, Benefits Development and Research Department, PhilHealth*
9:05 AM – 9:30 AM	Learning from international experience: Case Study from Thailand's dialysis policy in the context of UHC *Dr. Piyatida Cheungsaman, Banphaeo Hospital, Thailand* *Dr. Yot Teerawattananon, HITAP*
9:30 AM – 10:00 AM	Using local evidence in policy: Presentation of study entitled *'Economic Evaluation of Renal Replacement Coverage Policies'* *Ms. Diana Beatriz Bayani, HTA Unit*

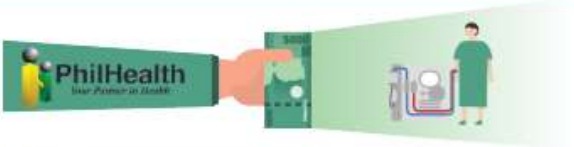
10:00 AM – 12:00 PM	Facilitated Discussion: Questions and Clarifications *Dr. Lester Geroy, Facilitator* Reactors: *Ms. Nerissa Santiago, Vice President, PhilHealth* *Representative, Makati Medical Center* *Dr. Elizabeth Roasa, President, Philippine Society of Nephrology* *Dr. Romina Danguilan, National Kidney and Transplant Institute* *Representative, Disease Control and Prevention Bureau,* *Department of Health* Open Forum
12:00 PM – 1:00 PM	Lunch

Appendix C: Policy brief

Economic Evaluation of Renal Replacement Therapy Options in the Philippines

HEALTH POLICY BRIEF

Should PhilHealth cover more hemodialysis sessions?



KEY MESSAGES

1. Patients on kidney transplant and peritoneal dialysis have better survival and quality of life compared to hemodialysis patients.

2. Compared to the current policy of providing inadequate hemodialysis coverage, shifting to PD-First is the most cost-effective policy option for PhilHealth.

3. PhilHealth should consider shifting to a PD-First policy and should promote kidney transplants among existing hemodialysis patients.

The burden of end-stage renal disease and its treatment

In the Philippines, chronic kidney disease (CKD) is among the topmost burdensome conditions, accounting for 2.98% of total disability-adjusted life years (DALYs). It is estimated that over 2.3 million Filipinos have CKD. In December 2016, a total of 36,247 patients were on dialysis treatment all over the country, reflecting an increase of 15% from the previous year. Addressing end-stage renal disease through renal replacement therapy (RRT) also poses a significant economic burden to the country, particularly to the national health insurance, PhilHealth. It is currently the second largest payout of PhilHealth, with a total payout of Php 8.8 billion. Among patients, it is also often the cause of catastrophic household spending.

2.3 MILLION
FILIPINOS HAVE CKD
(2% OF TOTAL POPULATION)

15% INCREASE
IN THE NUMBER OF
PATIENTS IN ONE YEAR

P8.8 BILLION
TOTAL PHILHEALTH PAYOUT
(7% OF TOTAL PAYOUT)

Renal Replacement Therapy in the Philippines

	Hemodialysis 	Peritoneal Dialysis 	Kidney Transplant 
Proportion of patients in modality	94%	4%	2%
Current PhilHealth coverage	90 sessions per year*	3 PD solutions per day, for a year	Transplant surgery and immunosuppression up to 600,000
Number of visits required per year	156 (adequate treatment)	24	16 (for the first year after surgery)
Estimated total annual medical cost	Php 562,000	Php 235,000	Php 1.2 million

*90 sessions is considered inadequate as the standard treatment is 3 times per week or 156 sessions per year

Economic Evaluation of Policy Options for Renal Replacement Therapy

The HTA Study Group, with support from the International Decision Support Initiative (iDSI) via the Health Intervention and Technology Assessment Program (HITAP, Thailand) and the National Kidney and Transplant Institute (NKTI), conducted an economic evaluation to assess value for money of policy strategies for renal replacement coverage. Economic evaluation is the process of systematically assessing inputs (costs) and outcomes of alternative options. A model was developed to simulate the costs and benefits of each policy option. Data were obtained from the Philippine Renal Disease Registry, NKTI, and a patient survey with 262 participants. Outcomes are presented in terms of incremental cost per quality-adjusted life year (QALY) gained, which represents the additional cost of gaining one year in perfect health, for each policy option.

Option A	Option B	Option C
Expand current HD coverage to 156 sessions	Shift to PD-First policy	Shift to PD-First policy and increase pre-emptive transplants
94% on **156 sessions of hemodialysis,** 6% on peritoneal dialysis, 2% on kidney transplant	**87% on on peritoneal dialysis,** 11% on hemodialysis*, 2% on kidney transplant	76% on on peritoneal dialysis, 9% on hemodialysis*, **14% on kidney transplant**
Compared to **Current policy** where 94% are on majority 2 times a week hemodialysis, 4% are on peritoneal dialysis, and 2% on kidney transplant		

*patients with medical contraindications to peritoneal dialysis will remain on hemodialysis

Key Findings: Cost-effectiveness and budget impact

- Based on the patient survey conducted, the quality of life and survival of kidney transplant and peritoneal dialysis patients are superior compared to hemodialysis patients.
- Hemodialysis patients spend the most on non-medical costs such as travel and meals, since they visit the health facility more often: 156 times per year for HD compared to only 24 times per year for PD.
- Option B (shifting to PD-First policy) provides a better value-for-money to PhilHealth with an ICER of Php 570,029 per QALY-gained, compared to Option C (shifting to PD-First policy and increasing pre-emptive transplants) with an ICER of Php 577,989 per QALY-gained and to Option A (expanding current HD coverage to 156 sessions) with an ICER of Php 1,522,437 per QALY-gained.
- A budget impact analysis shows that expanding to 3-times a week hemodialysis (156 sessions per year) would cost PhilHealth more than twice the total cost of the current policy, whereas, shifting to PD-First and PD-First with KT would entail an increase of 11% and 43% of the total cost, respectively.

Policy recommendations

- The Department of Health (DOH) should consider mandating health care providers to adhere to the PD-First policy by releasing an administrative issuance for compliance.
- PhilHealth should improve its coverage policy for peritoneal dialysis, and should provide better coverage for hemodialysis for patients who are unable to shift. This should be complemented with supporting DOH administrative issuances.
- DOH and PhilHealth should consider negotiating for lower prices for PD solutions and immunosuppressive medications to lower the overall cost of PD and kidney transplants as they contribute to 89% and 82% of PD and transplantation cost, respectively.

HITAP technical support was provided though the Thailand Research Fund under a grant for Senior Research Scholar (RTA5980011) of Dr.Yot Teerawattananon and International Decision Support Initiative (iDSI-Plus) funded by the Bill & Melinda Gates Foundation.

This Brief is written by Diana Beatriz Bayani, edited by Dr. Gloria Nenita Velasco and Mary Joy Taneo, and designed by Jake Kho.

Appendix D: Photos

Philippine and HITAP partners after the RRT stakeholder consultation

Dr. Yot Teerawattananon (HITAP) and Dr Piyathida Chuengsaman (Banpheo Hospital, Thailand) share the Thai experience on RRT provision

Dr Piyathida Chuengsaman (Banpheo Hospital, Thailand) share the Thai experience on RRT provision

Discussing the results of the stakeholder consultation as well updates on the other studies

Discussing the process and method guidelines

Meeting the Health Regulations Team Undersecretary of Health Eric Domingo