Report on Topic Selection Workshop in India

26-27 July, 2016
New Delhi, India

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Picture: Humayun's Tomb, Delhi. Taken by Benjarin Santatiwongchai.

Acronyms and Abbreviations

AAR	After Action Review
ANZHSN	Australia and New Zealand Horizon Scanning Network
DHR	Department of Health Research
GoI	Government of India
HITAP	Health Intervention and Technology Assessment Program, Thailand
HTA	Health Technology Assessment
ICER	Incremental Cost-effectiveness Ratio
ICMR	Indian Council of Medical Research
iDSI	International Decision Support Initiative
IPR	Intellectual Property Rights
M&E	Monitoring and Evaluation
MCDA	Multi-Criteria Decision Analysis
MoH&FW	Ministry of Health and Family Welfare, India
MoPH	Ministry of Public Health, Thailand
MTAB	Medical Technology Assessment Board
NHM	National Health Mission
NHS	National Health Service
NHSO	National Health Security Office
NHSRC	National Health Systems Resource Centre
NICE	The National Institute for Health and Care Excellence
NPPA	National Pharmaceutical Pricing Authority
NSSO	National Sample Survey Organisation
OOPE	Out of Pocket Expenditure
PoL	Price of Life
STG	Standard Treatment Guidelines
UCBP	Universal Health Coverage Scheme Benefits Package
UHC	Universal Health Coverage
UK	United Kingdom

Contents

Executive Summary

India is planning to establish the Medical Technology Assessment Board (MTAB), a Health Technology Assessment (HTA) unit in the Department of Health Research, Ministry of Health & Family Welfare (MoH&FW). Taking this initiative forward, DHR is working with the International Decision Support Initiative (iDSI), led by NICE International, to build HTA capacity in the country. As part of this collaboration, the Health Intervention and Technology Assessment Program (HITAP) was requested to conduct a workshop on topic selection for HTA as part of a larger stakeholder awareness raising workshop titled "HTA Stakeholders Consultative Workshop" on 25-27 July, 2016 in New Delhi. The first day of the workshop, led by NICE International, included a high level inaugural session along with technical sessions bringing together speakers from a range of organizations in the country. A representative from the Thai Ministry of Public Health (MoPH) and two HITAP staff also made presentations on the first day of the workshop.

This report focuses on the Topic Selection component of the workshop held on 26-27 July, 2016 as well as activities led by HITAP. The workshop comprised one lecture, two panel sessions and three group activities. Presentations were made on the importance of topic selection in HTA, how topics are selected in different settings and what happens after the topic selection process is completed. The group work served as the backbone of the workshop and engaged participants in discussions on the following: investment and disinvestment of technologies or interventions; the scope of HTA in the context of India, including how it would work at the national and state levels; and, identifying and engaging stakeholders in the topic selection process as well as developing a blueprint of the process for topic selection in the country. On Day 1, HITAP staff hosted a booth for participants to play the "Price of Life", a game developed by its Communications' team, to raise awareness on issues of priority setting. The HITAP team adapted a survey questionnaire on the need, supply and demand for HTA to the context of India and used it to understand the situation and use the results to engage participants. The preliminary results of the paper-based survey provided insights on the landscape of HTA in the country and were presented in the last session of the workshop.

Response to the workshop suggests that the workshop had generated awareness and interest in issues of HTA. This workshop also showed that there are opportunities for conducting HTA in India. Further, there is demand from some states for this kind of support as well as a supply of evidence generators such as academic institutions across the country. As noted by speakers in the opening and closing ceremonies of the workshop, the government is committed to ensuring quality healthcare for the populace and there is a recognition that this entails making choices and setting priorities. Over the next few years, iDSI plans to work with DHR and ICMR to build technical capacity for HTA and develop a structure and process for HTA that is suited to the needs of the country.

Introduction

India, home to one fifth of humanity[1] and one of the fastest growing economies in the world[2], has made efforts to improve healthcare for its citizens through a range of programs. While there has been an improvement in health outcomes over the years, there is substantial variation across states[3]. Marked by a low level of public investment in health and high out-of-pocket expenditure (OOPE)[4], several attempts have been made to expand health insurance at the national and state levels. In articulating the role of health research in addressing the challenges facing the health sector in India, the 12th Plan Working Group on Health recommended setting up a body to conduct cost effectiveness studies and in 2013, the Department of Health Research (DHR), Ministry of Health and Family Welfare (MoH&FW), Government of India (GoI)[5] announced that it would set up the Medical Technology Assessment Board (MTAB) for this purpose.

The Health Intervention and Technology Assessment Program (HITAP) was requested to conduct a Topic Selection Workshop in July 2016 as part of a three-day Stakeholder's Consultative Workshop organized by the National Institute of Health and Care Excellence (NICE) International, DHR and the Indian Council of Medical Research (ICMR). This activity was completed under the International Decision Support Initiative (iDSI) and is the first engagement HITAP has had at a national level in India[6].

The workshop was divided into two components: Day 1 focused on raising stakeholder awareness on HTA and included a high-level inaugural session attended by the Ministers of State for Health along with technical panel sessions; Days 2 and 3 of the workshop aimed to raise awareness on the topic selection process for HTA in India through a combination of lectures, group work and panel sessions. This report provides a summary of the topic selection component of the workshop as well as activities led by HITAP and is structured as follows: Section summaries on the proceedings of the workshop, Results of the workshop, Lessons learned and Discussion with partners and next steps with supporting information in the Annexes.

Section Summaries

The Topic Selection workshop was part of the "HTA –Stakeholders' Consultative Workshop" and comprised a lecture, panel sessions and group work. The following sections provide summaries of four distinct activities: lectures and panel sessions, group work, results of "Price of Life" game hosted on Day 1 and the results of a survey on HTA. Since the Topic Selection workshop was one part of a larger workshop organized by DHR, ICMR and NICE International, a summary of sessions on Day 1 and the closing ceremony on Day 3 have been included in Annex 2 to provide context.

[1] Public expenditure in health is around 30% of total health expenditure; OOPE is above 60%. Source: World Development Indicators, 2015
[2] https://www.weforum.org/agenda/2016/04/worlds-fastest-growing-economies/
[3] National Health Profile 2015. Link: http://cbhidghs.nic.in/writereaddata/mainlinkFile/NHP-2015.pdf
[4] World Development Indicators, 2015, for 8 countries in the South Asian Association for Regional Coorperation (SAARC)
[5] "Medical Technology Assessment Board to Be Set Up", Press Information Bureau, Link: http://pib.nic.in/newsite/PrintRelease.aspx?relid=101329
[6] HITAP has worked with academic institutions and participated in workshops in the country in the past. See Annex 5

Section A: Topic Selection Workshop: Lectures and Panel Sessions

During the topic selection portion of the workshop, there was one lecture and two panel sessions, and three group work sessions. The proceedings, including discussions arising from the lectures and group work, are described below:

Importance of Topic Selection

The morning session was chaired by Dr. V.M. Katoch who made opening remarks and introduced the first session on the "Importance of Topic Selection", delivered by Dr. Yot Teerawattananon. Starting with questions, Dr. Yot asked participants how they decided on topics for research to which some replied that funders, decision makers and student interests have determined topics for research. In his lecture, Dr. Yot stressed on the importance of getting the right research questions for HTA saying that it was the first step in having a good assessment and dissemination strategy. Two factors that impact the use of HTA in policy making are ownership and legitimacy of the policymaker and the context of the research question. There are two ways of thinking of HTA questions: investment in new technologies or scaling up of pilot projects, and disinvestment of ongoing interventions or currently used technologies as well as narrowing a program's reach through targeting programs, for example. In a discussion, it was pointed out that HTA is not aimed at finding the best technologies or interventions but the appropriate one i.e. those that are available, accessible and acceptable.

Discussion on investment/disinvestment exercise

The exercise on investment and disinvestment brought up a discussion moderated by Dr. Yot and Dr. Kalipso Chalkidou. Participants and discussants dwelled on the issue of barriers for investment and disinvestment such as the risk of implementation of a technology or intervention that was not appropriate, prioritization of cost over other criteria, involvement of a long list of decision makers and the difficulty of disinvestment given established interests. On disinvestment, framing disinvestment policies is important with one option being to use cost effectiveness as an argument and another to show how resources could be reallocated to other programs. Three issues that came to the fore were: one, defining the role of HTA in policy making so that it is legitimate and does not overstep its limit; two, the impact of HTA decisions on the poor; and three, involvement of the general public and patients.

Discussion on HTA & disinvestment

This discussion carried over in the next session and was led by Dr. Kalipso who said that it was important to clarify the role of HTA and disinvestment. She noted that in the UK, NICE is responsible for putting resources where benefits can be expanded and identifying opportunity costs, using discretion in some aspects of the decision making. In the UK, institutional arrangements were developed including setting up lines of communications and buy-in from various stakeholders to allow for NICE's autonomy. Dr. Kalipso also clarified that iDSI's role was not to provide policy support but rather technical support. One respondent said that it may not be appropriate to start institutionalization of HTA with disinvestment but rather move in a phased manner and build research capacity and utilize data. When asked about how it worked in Thailand, Dr Yot said that when HITAP started, it had funding and comprised a small group of dedicated people. Once HITAP completed its first project, it created a demand for that kind of research. Unlike NICE, HITAP does not have decision making authority.

Topic Selection in Different Settings

The panel session, "Topic Selection in Different Settings", was chaired by Dr. R.S. Dhaliwal, who gave opening remarks, and moderated by Prof. Anthony Culyer. Panelists were Benjarin Santatiwongchai, Alia Luz and Dr. Jitendra Sharma. Their presentations and ensuing discussions are described below:

NHSRC

Dr. Jitendra Sharma from the National Health Systems Resource Centre (NHSRC) made a presentation on the HTA situation in India and said that recent efforts have been focused on how to save money by changing practice. There is no formal mechanism for topic selection in the country and currently, topics come from three channels: various government departments including the National Pharmaceutical Pricing Authority (NPPA) and from within the MoH&FW, topics submitted by stakeholders in the National Health Innovations Portal and topics from the HTA Fellowship organized by the division. He argued for using HTA for additional interventions and not basic interventions in India and said that HTA was a tool for achieving Universal Health Coverage (UHC). In the discussion that followed, it was clarified that currently there is no mechanism for horizon scanning in the country. Dr. Jitendra also explained how the ceiling price is calculated given that there is no explicit threshold value. On the impact of the HTA Fellowship, he said that fellows are often unable to work on HTA after completing the fellowship given their full-time positions.

Thailand

Benjarin Santatiwongchai presented on Thailand's experience with topic selection for HTA and its application to the development of the benefit package. She described the evolution of the process at HITAP which began in 2007 by soliciting topics from a range of organizations through an annual topic selection process. This generated demand among policymakers and in 2010, it was linked to the Universal Health Coverage Scheme Benefits' Package (UCBP). Starting in 2012, the annual topic was discontinued and a bi-annual process, linked with stakeholders, including decision makers, was set-up. While the panel can propose topics, the responsibility of prioritizing topics rests with four representatives (health professionals, academics, patient associations and civic groups). Criteria were developed to prioritize topics using a scoring system. HTA recommendations have been presented to the Sub-Committee for Development of the Benefits Package and Service Delivery. One participant asked about the criteria used to which Benjarin responded saying that a multi-criteria decision analysis (MCDA) was applied backed by a literature review and consultation. Another participant asked a question about the criteria on financial cost of the intervention and Benjarin explained that it was the expected economic impact on household expenditure; in the early iteration, the score was binary but was later changed to be a range in order to be less subjective.

EuroScan

The final presentation for the afternoon was made by Alia Luz on the EuroScan strategy for horizon scanning. EuroScan, Alia explained, is an international network of agencies sharing information. It has developed a five-stage process to define "early awareness and alert" or EAA systems. The five stages are identifying the customer, determining the time horizon for use of technology, horizon scanning through either proactive or reactive approaches, filtration of relevant technologies and finally, prioritization with or without predefined criteria such as burden of disease. Alia then gave an example of the Australia and New Zealand Horizon Scanning Network (ANZHSN). The following issues were raised during the discussion: the timeline for horizon scanning can vary depending on the output (brief versus a report) and experience from Thailand suggests that it can take about a couple of weeks; since horizon scanning relies on the quality of available evidence, it can be challenging to verify the information obtained; if this process is applied to India, it would need to be adapted so as to account for the different perspectives at the national and state levels as well as patients, many of whom are self-paying. Clarification on funding for EuroScan was also made.

What is important After Topic Selection?

The panel session on "What is important after topic selection?" was the last session of the workshop before the closing ceremony. Moderated by Prof. Bruce Campbell, the session provided perspectives on how the topic selection process

was linked to the HTA process as a whole. Panelists were Karlena Luz, Dr. Yot Teerawattananon, Dr. Laura Downey and Dr. Ravinder Singh. Songyot Pilasant joined the panel to present the preliminary results of the survey on the need, demand and supply of HTA in India, which participants had completed the previous day. The background and results of the survey are provided in *Section D* of this report. Questions from the floor were taken after all presentations had been made and this order is reflected in the description below:

Role of Communications

Karlena spoke on the role of communications in the topic selection process focusing on the UCBP in Thailand. The main objective of communications in the context of an HTA body and stakeholders, she said, is to encourage public engagement in the process. Activities include sending letters of invitation for HTA projects to stakeholders, providing information through booklets, electronic media, etc, to target groups, initiating awareness campaigns that increase accountability, using social media and developing tracking systems to identify users and measure impact of HTA. One of the points she noted was that when the process of topic nomination expands to multiple stakeholders, there is a need to adapt ones communication strategy.

Implementation

Dr. Yot made a presentation on the implementation of prioritized research topics. After the topic is prioritized, the next step is to translate the policy question to a research question. This is important as research questions are specific than policy questions and help establish evidence and it is possible that the research question may not be the same as the policy question. Involvement of stakeholders in key. Three factors that affect implementation of HTA topics are funding, research team involvement and timing. Dr. Yot then gave the example of the reflective error eye screening program in schools in Thailand: the original topic nominated by civil society was about including eye glasses for children in the UCBP. Through a process of consultations, a proposal to train teachers to screen children in schools was made and was seen as a viable alternative to having health professionals screen 5 million children. The program was launched earlier this year by the Prime Minister of Thailand.

UK Perspective

Dr. Laura then gave the UK perspective, presenting on NICE and its functions in the context of its publicly funded healthcare program, the National Health Service (NHS). She shared the key procedural principles for guidance development and explained technology appraisal as well as the importance of involving stakeholders. Over time, NICE has covered more issues, starting with technologies and moving to clinical guidelines, public health, quality outcomes framework, medical devices among others. Dr. Laura then expanded on what health economics entails, showing how assessment, using these methodologies, are then used for decision making by the Appraisal Committee. Pointing to the need to prioritize in India, she gave the example of the Delhi government's Swacch Bharat application which was overwhelmed by requests and was unable to keep up.

Indian Perspective

Dr. Ravinder shared the Indian perspective, and spoke about "Going Beyond Topic Selection". With a focus on mental health, Dr. Ravinder provided an overview of what has been done in the past and spoke about the gaps that had been identified. These were around issues of manpower and infrastructure, management of schizophrenia and acute psychosis, relationship between behavioral and social variables, models of community care and research related to alcohol and substance abuse. Dr. Ravinder pointed out that India is looking to systematize the HTA process as against the current process which includes several steps. He showed that there are five phases with the research phase incorporating input from patients. Dr. Ravinder

highlighted the role of stakeholders and the media noting the importance of dissemination and communication strategies. In terms of funding, he said that currently there are a variety of sources for funding including the government, pharmaceutical companies and research organizations, among others.

Discussion

There were several questions raised during the discussion. One participant asked about how many topics are nominated and how long the process takes to which Dr. Yot responded saying that only the top five topics are selected and that every group is allowed to nominate only three topics every six months, thus limiting the maximum number of topics to 21. The next question was directed to NICE and Prof. Culyer about the relationship between NICE and the Ministry and whether the ministry had ever said no to NICE or whether they have to accept and implement the process. Prof. Bruce harkened back to the example of Relenza where the government stood by NICE's recommendation to not adopt the medication. Prof. Culyer pointed out that there is a difference in the relationship that NICE and HITAP have with their decision makers and that both systems can work. In the case of Relenza, it would have been hard for the Minister to have overturned the recommendation and so in some ways, it gave it a political advantage. On the committees, one questioner asked about how does one address disagreement. Dr. Yot said that through the process of HTA, practitioners learn more about decision makers. He added that one has to dig deeper to understand why there is no consensus, whether it is because of a difference in opinion or whether the evidence generated is not good enough, which means that one had to go back to the drawing table and strengthen the evidence base. Prof. Bruce said that sometimes, if there is no consensus, one can have an informal vote, which need not be an actual vote; he said that in his experience of chairing over 200 committees, they only went for a vote three times. Reaching a consensus, he said, requires skillful leadership. It also means that one must be able to identify in the discussion what people agree upon and to ensure that everybody at the meeting is involved, including those who have not spoken. Prof. Culyer added that it was important to nurture the culture of the committee and that even if one is an expert in one field, one needs to be able to listen and look at other aspects of the issue.

Another participant asked about whether assessment of the capacity to implement a program should be an important consideration in prioritizing the topic. In his response, Dr. Yot said that in the case of topic nomination, it is important to build better capacity so that stakeholders nominate more policy relevant topics the next time. It is sometimes difficult to deal with academics and professionals, even if there are good topics, there can be Intellectual Property Rights (IPR) issues and so one needs to have disclaimers in place to recognize and acknowledge them. Another question related to India's Incremental Cost-effectiveness Ratio or ICER values and Dr. Laura replied saying that there is much work to be done at the ground level and this will inform what MTAB's role will be. One participant asked about what the role of the media will be other than dissemination as decisions can sometimes be made by the media rather than due process. To this, Dr. Ravinder said that the media does not always have a negative effect and that it can serve as a positive force. Karlena added that with the UCBP, the media participates and has a role. While it does not have a direct impact on sensitive issues such as approval of medicines, it is relevant in terms of publicizing the work, even during nomination, so that debates on issues can have traction.

Following up, another participant asked about HITAP's ranking system: who decides on the criteria used and whether implementation should be part of the criteria. Songyot responded by saying that many stakeholders come together to decide on the criteria to be used. Further, Dr. Yot, said that these criteria are endorsed by a legal body, the National Health Security Office (NHSO). Another question

was asked about the Thai process about the timing of UHC and HITAP in Thailand, which were put in place in 2002 and 2007, respectively. Focusing on next steps, one participant said that in this environment of low public health expenditure, one is trying to introduce a new way of thinking and so one needs to take baby steps. This can help create a sense of credibility and acceptance. One needs to identify an issue that can be taken forward and can be a "quick win". On topic selection, health is a state subject, and so one needs to get them on board. For this, one needs a decentralized approach and he suggested that ICMR think of having regional hubs and identify academic institutes in each zone. ICMR can negotiate with state governments in each zone and once it is finalized, academic institutes can then go ahead.

Section B: Topic Selection Workshop: Group Work Activities

Three group work sessions were held on the following topics: 1) Investment and Disinvestment, following the lecture on the importance of topic selection, 2) Scope of HTA, and 3) Brainstorming Session for Topic Selection Process in India. The group work sessions were designed to be the backbone of the workshop with group work leads developing the materials for participants and facilitators to refer to. Originally, facilitators had planned a group work session on applying topic selection protocols to three topics in the context in India. However, in response to the discussions in the morning session, it was decided to re-structure the group session in the afternoon to better understand the scope of HTA in the country. Similarly, the third group work was adapted to build on the discussions on the previous day of the workshop.

After the first lecture, six groups were formed by random selection (counting one through six) with adjustments made for diversity in groups. Two facilitators were assigned to each group, one from NICE International and one from HITAP. The groups and associated facilitators stayed the same for all three group work sessions. Groups were given time to discuss internally and then make a presentation to the entire gathering followed by questions and a discussion. The Group Work Lead and Dr. Yot assisted groups, kept the time and led the discussions.

A summary of the group work, their objectives and key questions are provided in Table 1 below:

Table 1: Group Work Summary

#	Group Work	Objective	Key questions raised
1	Investment/ Disinvestment	• To brainstorm about health technologies that the government may consider investing in or from which the government would do well to disinvest. • To explore the main barriers, criteria, decision-makers and who to communicate with on investment or disinvestment of health technologies.	• Which technologies/interventions should receive investment or merit disinvestment? • What are the main barriers to investing/disinvesting the technologies/interventions identified? • Which criteria could be used for prioritising the investments? Which are the most important criteria? • Who should be involved in the decision making process and when should they be involved? • Who could be informed about the information regarding the investments/disinvestments?

2	Scope of HTA	To understand the kind of technologies/interventions that HTA can address taking into account the division of responsibilities at the national and state levels for health in India.	• What type of technology/intervention should be reviewed as part of HTA? • What are the implications of doing this work at the state or national levels?
3	Brainstorming on Role of Stakeholders and Process for HTA in India	To develop a proposal for topic selection process in India particularly in engaging stakeholders and determining the process of selecting topics for HTA.	• Working Group 1: Stakeholder involvement o Who are the relevant stakeholders? o How to involve them? o How to make each of them active in the process? • Working Group 2: Process o How to involve identified stakeholders in the topic selection process (topic nomination, review of evidence and prioritisation)?

Below are examples of issues raised for selected questions from each group work session during the workshop:

Group Work 1

Table 2: Group Work 1: Selected Points

Examples	**Investment**	**Disinvestment**
Topics	• Mobile health technologies for MCH by community health workers • Strengthening service delivery at sub-centres for provision of primary care • Home-based water purification system	• Routine mass deworming in schools • Mass screening for diabetes • Nutritional programs
Barriers	• Technology • Political will • Basic infrastructure	• Lack of evidence • Regulatory • Vested interests
Criteria	• Cost effectiveness • Budget impact • Disease burden	• Impact on poor • Community/beneficiary feedback • Budget impact

Note: There is no one to one correspondence between the examples in different topics

During **Group Work 2**, participants also discussed the implications of doing the work at the national and state levels since health is a state subject. These are summarized below:

- *Type of technology*: Screening could be under the purview of states while vaccination programs could be managed at the national level. Some believed that the types of technologies need not be divided between the state and centre.
- *Factors*: There are various factors that determine whether the centre or state conducts HTA; these include: prevalence, actual access, infrastructure, human resources, and funding
- *Funder:* Whoever funds the program should be responsible for HTA of the program
- *Activities*: At the national level: advice, policy development, piloting interventions in states, funding, monitoring & evaluation (M&E); at the state level: consultations, adaptation and adoption of policy, targeting population, staff training, infrastructure & facilities, implementation, generating data for M&E, informing national policy. Both centre and state ought to provide funding for these interventions.

Group Work 3

Working Group 1: Stakeholder Involvement

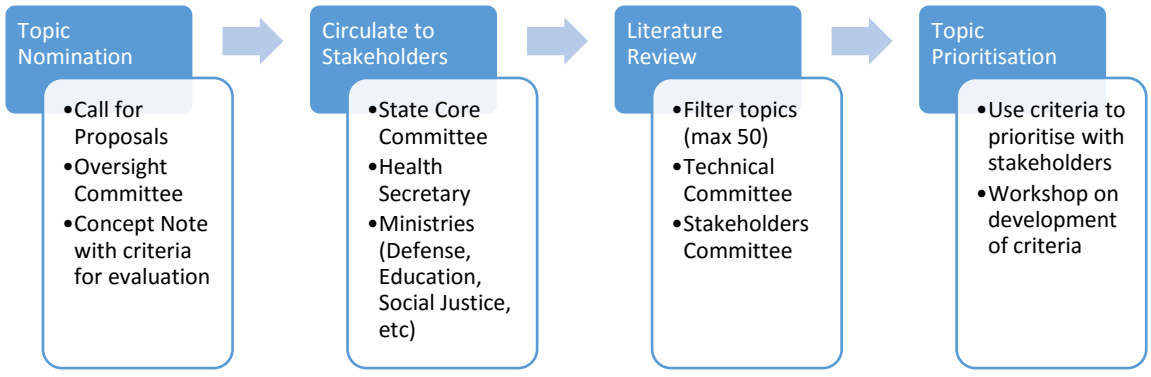
Table 3: Group Work 3 – Working Group 1: Selected Points

Stakeholder	Representatives	Incentives	Barriers
Policymakers	MoH&FW & State level	Already engaged & motivated so keep in touch share products, keep involved	-
Health professionals	Professional bodies at national and state level	• Self-motivated • Professional credit • Social recognition	• Time • Private interests
Patients	• Some represented in healthcare payers groups • Hospital based small groups • Identify using survey	Self-motivated	No clear representative

Note: Selected stakeholders and features taken from one group's work

Working Group 2: Process

Figure 1: Group 2 – Working Group 2: Example



Note: Example of proposed process for Topic Prioritization by one group (adapted for presentation purposes)

The above examples provide a glimpse of the discussions and show that there were a variety of perspectives on topics, stakeholders, criteria and processes. Going forward, these ideas could be refined and built on further.

Section C: Price of Life

On Day 1 of the workshop, HITAP hosted a booth for participants to play the Price of Life (PoL) game. PoL is a web-based game developed by the HITAP Communications team to raise awareness on priority setting and allows players to act as decision makers who have to pick interventions for investment with a limited budget and within a certain period of time. The challenge is to save the most number of people with the budget, information and time available. There are three parts to the game: Prevention, Health Promotion and Treatment.

Ten participants' scores were recorded. To start with, participants are presented with a choice of either investment in Treatment or Prevention which determines the order of the interventions. Of the ten participants, nine chose prevention while one chose the treatment option. Below are diagrammatic representations of the choices made by participants in the sections of Prevention, Health Promotion and Treatment.

On Prevention, participants had to decide on the coverage of vaccination for seasonal influenza, making a trade-off between coverage and costs (Figure 2). Among health promotion activities, participants could choose between Physical Activity, Hygiene or Nutrition or a combination of the three (Figure 3). The third part of the game, on Treatment, involved choosing between two types of drugs to address cardio vascular diseases. Drug B costs four times more than Drug A but resulted in only one death as opposed to five deaths under a Drug A regimen (Figure 4).

Figure 2: Immunization Coverage

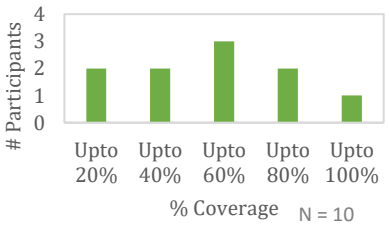


Figure 3: Health Promotion

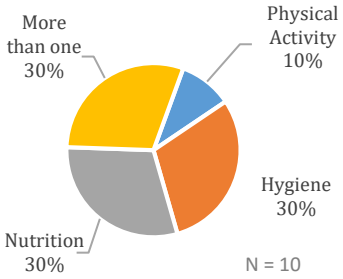
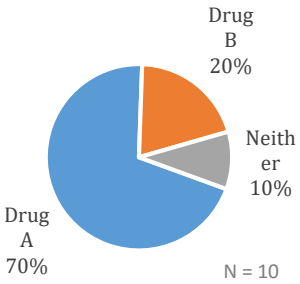
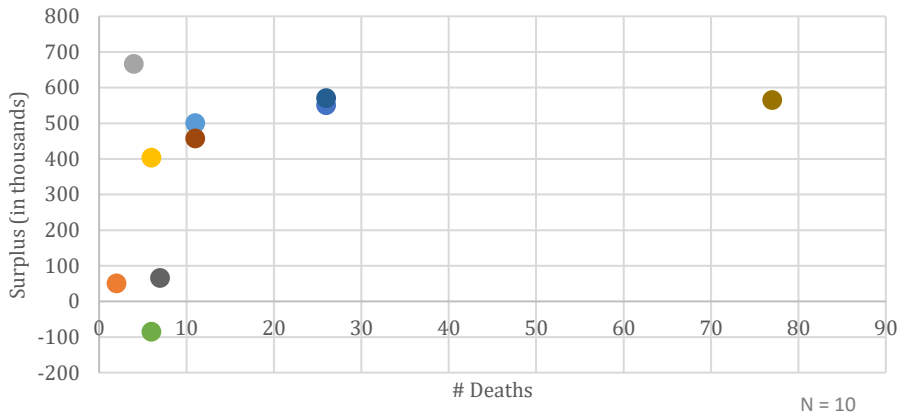


Figure 4: Treatment



The end-point of the game is to save the most number of lives (or avert the most number of deaths) at the least cost (or most "surplus"). The scatter plot shows the relationship between the number of deaths (x-axis) and the surplus amount (y-axis). A majority of the participants minimized the number of deaths at varying levels of surplus. The outlier case of high mortality (77 deaths) and high surplus was one where there was low investment in prevention (20% coverage). These results are shown in Figure 5.

Figure 5: PoL Game Outcomes



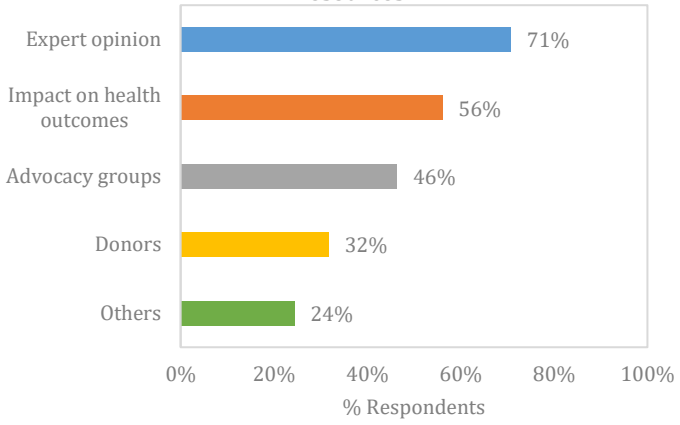
Section D: Survey results: Need, Demand and Supply of HTA in India

Given the emerging HTA landscape in India and in an effort to make discussions relevant to participants, a twenty-four question survey was fielded to understand the need, demand and supply of HTA in the country. This questionnaire was adapted by the HITAP team from the "Situation Analysis of HTA Introduction at National Level" developed by HITAP and NICE International. Hard copies of the survey were distributed as part of the participant pack given at the start of the workshop. Participants were given time to complete the survey during the afternoon on the second day of the workshop and the results were presented to participants by Songyot Pilasant during the panel session on the third day of the workshop. The results of the survey are anonymous.

The response rate for the survey was about 68% with 41 participants having completed the survey. The questionnaire was divided into four parts: Need for HTA in your context, Demand for HTA in your context, Supply for HTA in your context and Role of your organization in HTA. Participants were asked to respond to questions with reference to one context – national, state, municipal or other – given the different levels at which health actors operate in the country. A sample of the preliminary findings from the survey are presented here[7]:

[7]Parts of this analysis have been taken from: "A survey on need, demand and supply for HTA in India: Preliminary Findings" by Songyot Pilasant, 27 July, 2016

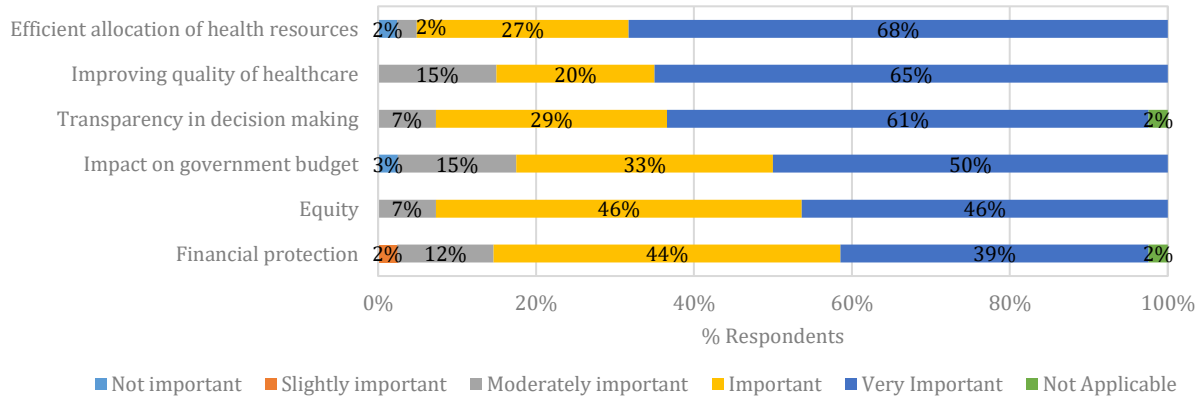
Figure 6: Basis for Allocation of Healthcare Resources



N=41
Note: Respondents could choose more than one option

As illustrated in Figure 6, about three quarters of the respondents (71%) felt that the government allocated healthcare resources on the basis of expert opinion followed by the impact on health outcomes (56%), advocacy groups (46%), donor priorities (32%) and others (24%). In terms of the various aspects of policy for healthcare, respondents rated efficient allocation of healthcare resources (68%) followed by improving quality of healthcare (65%) and transparency in decision making (61%) as being most important (Figure 7).

Figure 7: Importance of Attributes



The survey revealed that a large number of the respondents felt that the organizations that demand and supply HTA operate at the national level (45% and 63%, respectively) as shown in Figure 8. Further, about half of the respondents (49%) said that they saw their own organization as a generator of evidence while 39% said that they saw their organization as both a generator and user of evidence (Figure 9).

Figure 8: Demand and Supply of HTA

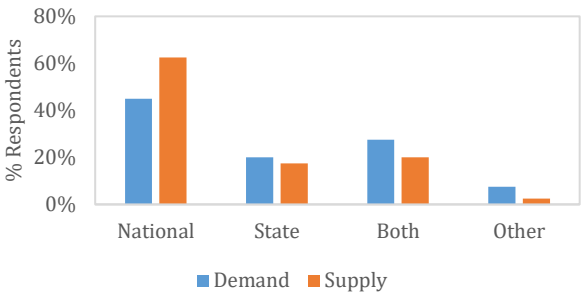
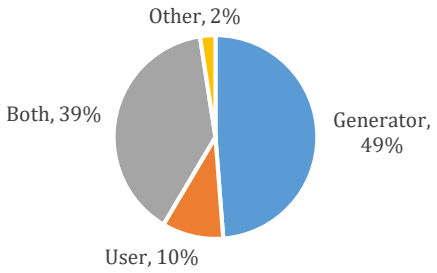


Figure 9: Respondents' View on Role of Own Organisation



Respondents were asked to provide topics for HTA; below are a few examples of HTA topics proposed:

- Preliminary point of care of breast cancer screening devices
- Efficacy of diet and exercise on magnitude of diabetes mellitus and other lifestyle diseases
- Reduction of empirical antibiotic usage
- Screening programme for Non-Communicable Diseases
- Point of care diagnostics for diabetes mellitus

Results

The objective of the workshop was to raise awareness on HTA and the topic selection process for HTA. Evaluation forms were developed to collect feedback on the event and on each session. Further, a list of newspaper articles on the event have been included for documentation.

Evaluation

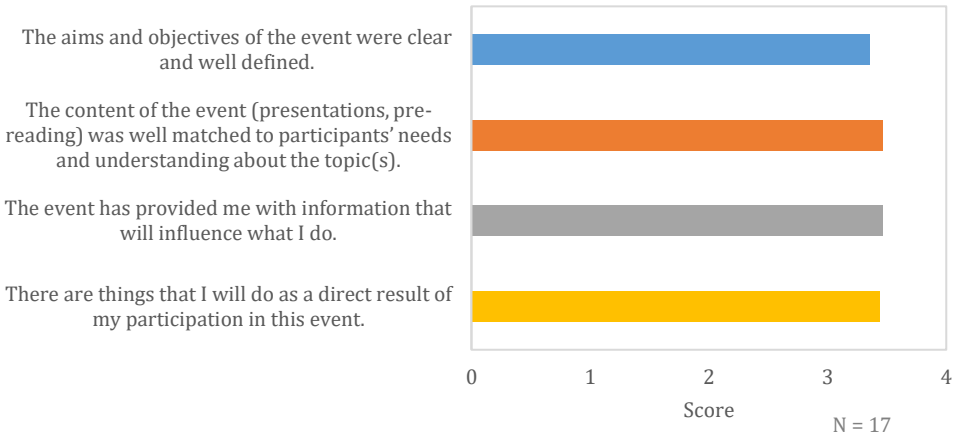
The Participants were provided with "packs" which included two evaluation forms: one to collect feedback on the overall event using the iDSI evaluation form and the other, to collect feedback on each session developed by HITAP. For the latter, a two-page, compressed format was used for participants to complete in one sitting. Both evaluation forms were completed at the end of the workshop.

Event evaluation

The iDSI evaluation form was used to collect feedback on the event i.e. three day Stakeholders Consultative Workshop. The questionnaire asked respondents to rate four aspects of the event on a four-point scale as well as two open ended questions. The response rate for this form was 28%. Of the 17 respondents, 13 (76%) provided their email address and 8 (47%) agreed to have their contact information stored.

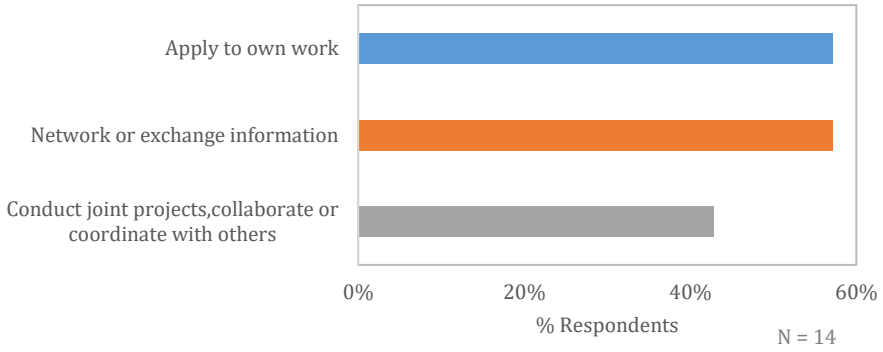
In Figure 10, the average score of responses to the rating questions have been provided. Notably, on average, respondents were likely to do apply the knowledge they had gained in the course of the workshop.

Figure 10: Event Evaluation: Use the scale below to show your agreement with each statement:



Analysis of qualitative responses to the question on what respondents plan to do as a result of this workshop has been presented in Figure 11. Respondents indicated that as a result of the workshop, they would network, exchange information or coordinate with other participants or organizations (57%). More than half of the respondents (57%) also said that they would apply the knowledge they had gained during the workshop in their own work including writing a proposal to become an "evidence generator" for HTA. Six respondents (43%) said that they would coordinate, work on joint projects and collaborate with other organizations.

Figure 11: Please provide an example of one thing you will do as a result of participating in this event…



Note: Responses may be categorized into one or more options

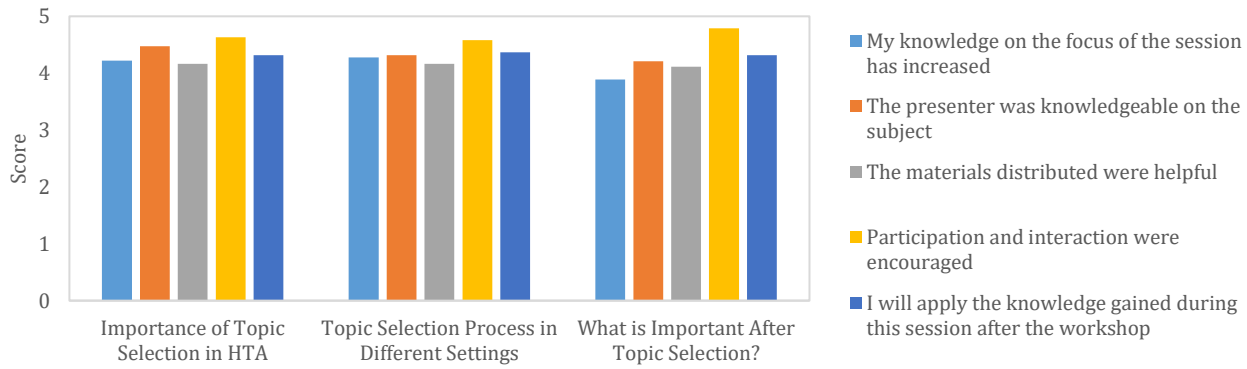
In providing suggestions for improvement of future iDSI events, 44% of the respondents made comments related to the content including having more in-depth sessions on the methods for HTA as well as being more country-specific. The latter point was echoed by two respondents (22%) who suggested that the sessions be more structured so as to be more specific. One respondent asked to share the PowerPoint presentations.

Session-wise evaluation

The two-page questionnaire was divided into three parts: in the first two parts, participants were asked to rate their level of agreement with five statements on a 5-point Likert scale concerning each lecture or panel session and the group exercise; the third part of the questionnaire was qualitative in nature, and participants were asked to share their views on what they liked most about the workshop, where they would like to see improvement and if they had any other comments. Responses were anonymous. The response rate was 32%, with 19 of the 60 questionnaires distributed being returned.

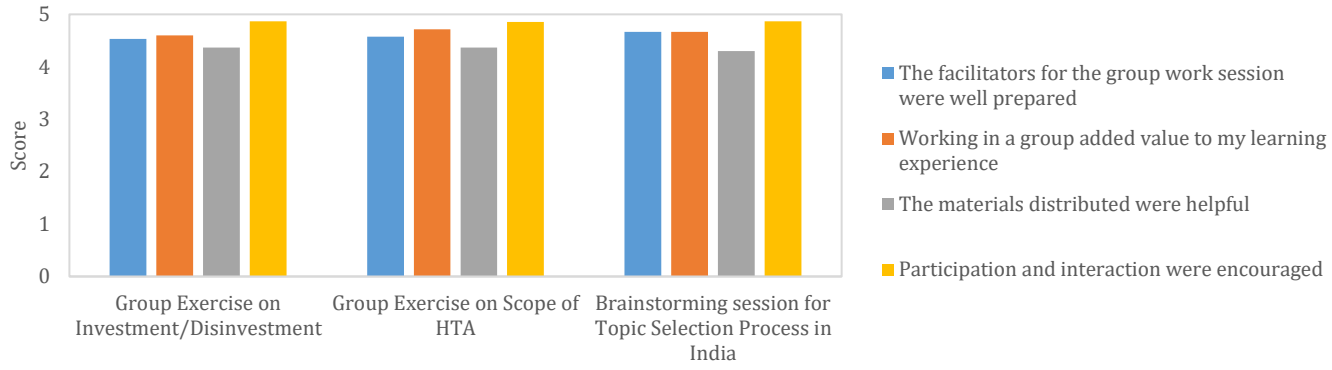
Part 1: Feedback on Lecture & Panel Sessions: Among the dimensions listed, respondents gave the highest rating to participation and interaction an average score 4.7 and about 72% of respondents strongly agreeing with the statement across the three sessions. While there may not be a statistically significant difference in the ratings, the dimensions that received a relatively lower average score of 4.1 across sessions were: increase in knowledge had 69% of respondents agreeing with the statement while 63% of respondents agreed that the materials distributed to participants were useful. Further, respondents said that they would apply the knowledge gained during the lecture and panel sessions with average score 4.3 and about 40% of respondents strongly agreeing with the statement. The distribution of average scores across sessions is provided in Figure 12.

Figure 12: Lecture & Panel Sessions: Please indicate your level of agreement with the statements



Part 2: Group Work Sessions: Group work was an important part of the workshop with more than half of the time allocated to it (approximately 7 hours of 11.5 hours). As with the lecture and panel sessions, respondents gave a high rating to the dimension on participation and interaction with average score of 4.9 and about 86% of respondents strongly agreeing with the statement. Additionally, respondents also rated the dimension "working in a group added value to my learning experience" highly with an average score of 4.7 and 66% strongly agreeing with the statement. On the other hand, respondents gave a relatively lower average score of 4.3 to the usefulness of materials distributed and 42% strongly agreeing with the statement. The distribution of average scores for each dimension across group work sessions is shown in Figure 13.

Figure 13: Group Work Sessions: Please indicate your level of agreement with the statements



Part 3: Qualitative:

To the question on what they liked most about the sessions, 53% of the respondents said they liked the participatory approach of the work, while approximately 30% said they liked the group work. About a quarter of the respondents appreciated the content as well as the faculty and facilitators. (See Figure 14).

On suggestions for improvement (Figure 15), a third of respondents made comments on the organisation of the workshop as well as the materials. For example, on materials, two respondent suggested sending materials before the workshop, while on organisation, respondents noted the due to limited time, one could not delve deeper into topics and having more variety in the agenda. On group work, one respondent said that instructions needed to be more clear.

Figure 14: What did you like most about the sessions?

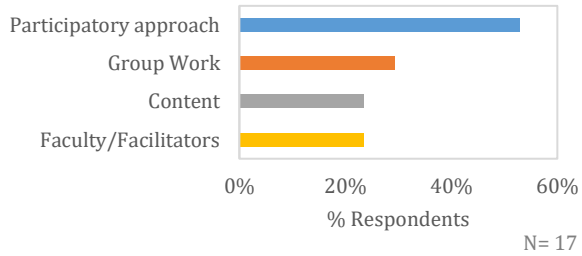
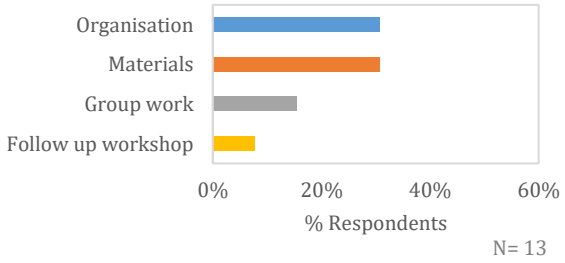


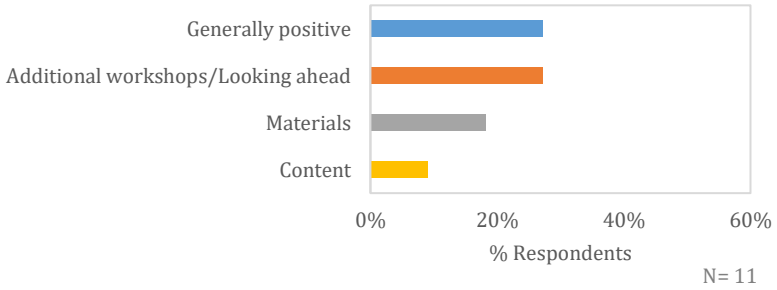
Figure 15: Do you have any suggestions on how we can improve the sessions?



Note: Responses may be categorized into one or more options

On other comments, about a third of the respondents made positive comments while another third suggested additional workshops or discussed next steps. On the content side, one responded asked to have more case studies. These are shown in Figure 16.

Figure 16: Do you have any other comments?



Note: Responses may be categorized into one or more options

Supporting tables for the graphs are presented in Annex 4.

Newspaper articles

Table 4: Newspaper Articles

Sr. No.	Title	Link
1	"International workshop on Health Technology Assessment (HTA) inaugurated Government is committed to reducing out of pocket expenses on healthcare: Smt Anupriya Patel HTA will lead India to have a robust Universal Health Coverage programme: Shri Faggan Singh Kulaste", Business Standard, Delhi Jul 25, 2016 08:28 AM IST	http://wap.business-standard.com/article/government-press-release/international-workshop-on-health-technology-assessment-hta-inaugurated-government-is-committed-116072500621_1.html
2	"Govt plans board on medical technology to benefit patients", Deccan Herald, New Delhi, July 25, 2016	http://m.deccanherald.com/articles.php?name=http%3A%2F%2Fwww.deccanherald.com%2Fcontent%2F560023%2Fgovt-plans-board-medical-technology.html
3	"India to establish Medical Technology Assessment Board", Rhythma Kaul, Hindustan Times, Updated: Jul 22, 2016 20:00 IST	http://m.hindustantimes.com/india-news/india-to-establish-medical-technology-assessment-board/story-I89ugB0XCjJBjNmyb68d8H.html

Lessons Learned

An After Action Review (AAR) was held on 9 August, 2016 with HITAP staff involved in the workshop. The agenda included an overview of the workshop outcomes, a discussion on what well went as well as areas for improvement. Table 5 below summarizes these discussion points from the AAR as well as feedback received from the evaluation forms:

Table 5: Lessons Learned

Areas	Lessons
Preparation	• Having a variety in types of activities in agenda was good. • Regular meetings of the team and teleconferences with panel chairs was useful. • May want to have one staff go in advance to manage contingency issues. • Consider investing in portable printer, speakers or projector. • May be useful to have a fact sheet on the country. • Travel pack was helpful. Suggestions were made to send the pack a few days in advance and in a format that can be used by everyone (PDF) or saved on cloud. • In terms of coordinating with partners, would be useful to have a formal mechanism of sharing documents (cloud). • Arrange for transportation in advance.
Workshop organisation	• Writing out tasks explicitly for each person was helpful for people to know what they were to do • Need to be more realistic about timing so that sessions start on time; Suggestions were made to start later or have some buffer time before session is to actually begin. • For lecture and panel sessions, have time cards for speakers to know time limit • Budget to have internet for HITAP staff • Flexibility in agenda was good but it is important to prepare for the changes. For example, share the new template at least some time in advance so that facilitators are clear about their roles. • For note taking, prepare a template to have summary points of a session. Can also invest in recorders to revisit discussion if needed. This can be helpful when pockets of discussion are missed.

Group Work	• Group work was valued by participants. • Participants were responsive and expressive. Need to ensure ground rules for groups are maintained and discussions remain structured (eg. Taking notes, allowing people to speak, etc). • Give rewards to groups so as to make it more fun. • Group work leads were able to move around and assist groups as needed. • For facilitators, it was good to pair HITAP staff with NICE International staff. HITAP staff can be responsible for note taking. • Have an orientation for facilitators in addition to the written notes. • Facilitators should also be provided with hard copies of the materials.
Materials	• Having printed copies was helpful. However, there were not enough copies so may be good to have a stand-by option. • Bind materials so that order is maintained and it is easy to find materials. • Keep these materials for future reference. • In spite of announcement of pack, there was still confusion. Take time to discuss, perhaps in groups. • If possible, send materials to participants beforehand
Communications Materials	• Carry video of "Power of HTA" should there not be internet. • Price of Life (PoL) was successful and while many people wanted to play, there was not enough time. May want to have more than one computer to play game. • Announcement of the game/booth helped boost interest/participation. • May want to develop pamphlets, CDs or a tablet version so that participants have other avenues for raising awareness on priority setting.
Evaluation	• To increase response rate, may want to tie giving certificates with completion of evaluation forms. • For session-wise feedback, it may be worth having participants complete the forms right after the session to ensure recall.

Discussions with Partners & Next Steps

In a post-workshop meeting between DHR/ICMR, NICE International and HITAP, several points were discussed, particularly: staff for MTAB, building technical capacity and developing a structure for HTA in the country. The need to have dedicated staff for MTAB and including health economists in its composition was discussed. Further, the importance of having sustainable funding from the government for these staff was also highlighted. Laura and Abha will work closely with DHR/ICMR on the same. In terms of building technical capacity, DHR/ICMR requested sending staff to HITAP to work on topics; the experience with Indonesia was shared. Two topics that could be worked on were diabetes screening and vitamin supplements. Additionally, a more in-depth technical training would be crucial to complement the on-the-job learning. On the structure for HTA, one option discussed was having regional hubs, as has been suggested during the workshop, with national standards.

In the short term, the expected outputs are:

- Given the expanded work program, NICE International, along with HITAP and other iDSI partners, will be submitting a proposal for a supplemental grant to the Gates Foundation for working with DHR/ICMR over the next few years.
- HITAP will lead on writing a paper on the results of the topic selection workshop.

Annexes

Annex 1: Agenda: Day 1

Ministry of Health and Family Welfare

DHR-ICMR-iDSI Collaborative
"Health Technology Assessment (HTA)- Stakeholders' Consultative Workshop"

25TH-27TH JULY, 2016

Venue: *Silver Oak Hall,*
India Habitat Centre
New Delhi

A G E N D A

DAY 1: Health Technology Assessment- Awareness for stakeholders		
8.30-9.00	**Registration & Tea**	
9:00-9:30	***(Please take seats)***	
Inaugural Session-9:30–10:40		
9:30-9:33	Welcome	**Shri Manoj Pant** Joint Secretary, DHR
9:33-9:38	Opening Remarks	**Dr. Soumya Swaminathan** Secretary, DHR and Director General, ICMR
9:38-9:42	Video Clip	**Power of HTA**
9:42-9:47	Address	**Dr. Phusit Prakongsai**, Director, Bureau of International Health, Ministry of Public Health, Thailand
9:47-9:52	Address	**Dr. Jagdish Prasad** Director General of Health Services
9:52-9:59	Address	**Shri BP Sharma** Secretary, Department of Health and Family Welfare
9:59-10:06	Special address	**Sir Dominic Asquith** British High Commissioner

10:06-10:14	Address by Guest of Honour	**Smt. Anupriya Patel** Hon'ble Minister of State for Health & Family Welfare
10:14-10:22	Address by Guest of Honour	**Sh. Faggan Singh Kulaste** Hon'ble Minister of State for Health & Family Welfare
10:22-10:35	Address by Chief Guest	**Shri Jagat Prakash Nadda** Hon'ble Minister of Health & Family Welfare
10:35-10:40	Vote of thanks	**Dr. Rakesh Kumar** Sr.DDG, Indian Council of Medical Research
TEA BREAK (10:40-11:30)		

Technical Session-I - 11:30-13:00
Health Technology Assessment-Sharing experiences

Chair: Prof. N. K. Ganguly
Co-Chair: Dr. Phusit Prakongsai
Moderator: Dr. Virander Chauhan

Global experience: Using HTA to inform international priority setting decisions	**Prof Anthony Culyer**, Emeritus professor, York University, University of Toronto & Chair iDSI (10 min)
HTA to policy in Thailand	**Dr. Yot Terrawattananon**, Founding leader, HITAP
The role of NICE in UK health service policy decisions	**Prof. Bruce Campbell**, Former chair NICE Interventional Procedures and Medical Technologies Advisory Committees. Consultant Surgeon
Current Status of HTA in India	**Dr. Ashoo Grover**, Scientist 'E', ICMR, India
Using HTA for decision-making in South East Asia: Is the environment conducive	**Dr. Lluis Vinals-Torres**, Regional Advisor, Health Financing – WHO-SEARO
Questions and Answers (30 min)	

LUNCH BREAK(1:00 pm-2:00 pm)

Technical Session II- 14:00-15:30
Priority-setting for Universal Health Coverage (UHC): Using evidence to inform decision making

Chair: Dr. Soumya Swaminathan
Co-Chair: Dr. Francoise Cluzeau
Moderator: Dr R K Srivastava

Evidence based decision making for UHC	**Dr. K.S. Reddy**, President, PHFI

Universal Health Coverage and National Health Mission	**Mr. Manoj Jhalani,** Joint Secretary and Mission Director (NHM), Ministry of Health and Family Welfare
Data sets for evidence synthesis to inform HTA	**Dr Sanjay Mehendale**, Director, National Institute of Epidemiology, Chennai
Economic Evaluations for HTA	**Dr. Ramanan Laxminarayan**, PHFI
International Decision Support Initiative: Support for priority setting in India	**Dr Kalipso Chalkidou**, Founding Director, NICE International and IDSI
Universal Health Coverage in Thailand: A success story	**Dr. Phusit Prakongsai**, Director, Bureau of International Health, Ministry of Public Health, Thailand
Questions and Answers (30 min)	
TEA BREAK (15:30-16:00)	
<u>Technical Session-III - 16:00-17:30</u> Stakeholders' Perspective on HTA	
Chair: Dr. K.K. Talwar Co-Chair: Prof Anthony Culyer Moderator :Dr. Meenu Singh	
HTA- an important tool for allocating resources- State perspective	**Ms. Vini Mahajan**, Principal Secretary Health & Family welfare, State of Punjab
Role of HTA in the Indian setting for better decisions	**Dr T. Sundararaman**, Dean, School of Health Systems Studies, Tata Institute of Social Sciences
Healthcare Organization Perspective on HTA	**Dr. Prem Nair**, Director, Amrita Institute of Medical Sciences, Kochi
NHSRC's HTA program	**Dr. Sanjiv Kumar,** Executive Director, NHSRC, Delhi
Standard treatment guidelines: Linking evidence-based medicine and HTA in India	**Dr Francoise Cluzeau**, Associate Director, NICE International
Sharing the evidence: Lessons from HITAP's communication strategies	**Ms. WaranyaRattanavipapong**, Researcher, HITAP, Thailand
Questions and Answers (30 min)	
- End of Day 1 -	

Annex 2: Summary of proceedings on Day 1 & Closing Ceremony on Day 3

Day 1:

The organization of the first day of the workshop was led by DHR, ICMR and NICE International. The day began with a high-level inaugural session, followed by three technical sessions. This section provides an overview of each session as background for the Topic Selection Workshop:

The session started with introductions of panelists and regrets from Minister of Health & Family Welfare, Shri Jagat Prakash Nadda, were also conveyed. The MC provided an over of the workshop, including the objective of this workshop to understand the role, impact, and outcome of HTA as a tool for priority setting as one moves closer to UHC. Each of the panelists was given a token of appreciation and the lamp was lit by the distinguished panelists to formally open the workshop. Mr. Manoj Pant gave the welcome address on behalf of DHR/ICMR and provided an overview of workshop structure stating that HTA is in the mandate of DHR and that they plan to adopt HTA. Dr. Soumya Swaminathan then addressed the audience and welcomed all saying that launching this initiative will be critical to India. The organisers proceeded to show the "Power of HTA" video that was developed by HITAP. Following the video, Dr. Phusit Prakongsai spoke on behalf of the Ministry of Public Health (MoPH), Thailand. He commended the efforts of partners and elaborated on how HTA is used in Thailand. Prof. Anthony Culyer, Chair of IDSI, spoke next saying that he was proud that IDSI was present on this occasion to help India go forward with HTA. Next, the Directorate General, Health Services (DGHS), Mr. Jagdish Prasad, spoke and said that using evidence for policy has been going on for a while although this has not been done in a formal way, including assessment of procedures and technologies at hospital level. This was followed by a speech by Mr. BP Sharma who said that HTA is the need of the hour and will go a long way in reducing the cost and improving use of appropriate technology in the country. The Ministers of State spoke at the end and framed the dialogue at the national level. Smt Anupriya Patel, speaking first, said that she was happy that DHR was taking this initiative. The final speech was given by Shri Faggan Singh Kulaste who said that this workshop could help India achieve the SDGs and goals in the 12th Five Year Plan. As we move towards achieve health care for all, he said that this can only be achieved when new technology is used, stressing the need for equity in access to healthcare no matter their economic status.

The first Technical Session focused on sharing experiences on HTA from different settings. Following opening remarks by Prof. Ganguly, Prof. Culyer gave a global perspective on HTA. Giving the rationale for conducting HTA, Prof. Culyer spoke about iDSI's approach that looks at the technical aspects such as literature reviews as well as the procedural aspects, such as accountability and transparency. Dr. Yot shared the Thai experience with HTA which is used to inform policy making including the benefits package for the universal health coverage scheme (UCBP), closing by saying that HTA equips politicians with justifications for their policy decisions. Prof. Bruce Campbell then spoke about the role of NICE in the UK, which was set up to reduce variations in treatment and care. NICE, he said, has a range of functions including development of guidelines, recommendations on drugs, among others. Next, Dr. Ashoo Grover from ICMR spoke on the HTA situation in India saying that there are various organisations working on HTA and that partnerships are being formed. This suggests that there is commitment for HTA and there is a need for more planning. Finally, Mr. Lluis Vinals-Torres spoke about the experience of HTA in South East Asia Region and said that Universal Health Coverage (UHC) is a major concern of the World Health Organisation (WHO). Saying that there are two approaches for defining the package of healthcare either providing services or purchasing services for which HTA provides an entry point for UHC.

Technical Session II was chaired by Dr. Soumya Swaminathan, with Dr. Francoise Cluzeau as Co-Chair and Dr R K Srivastava as moderator. Dr. K.S. Reddy spoke on evidence-based decision making for UHC. Given that there are many issues that UHC has to focus, there is a tension between these groups and the decision for coverage may not be agreeable to all, noting that HTA can serve as a guiding tool using cost-

effectiveness taking other factors into consideration. Mr. Manoj Jhalani spoke about the NHM as well as the health landscape in the country saying that there are several vertical programs and identified some areas of use for HTA such as the package of entitlements within NHM. He was followed by Dr. Sanjay Mehendale who, speaking on data for synthesis of HTAs, said that while it is important to have mechanisms in place for using health data in policy programs, it is also necessary to think about how this data is going to be used. He also gave the example of the Tamil Nadu ICMR initiative for data management State Health Data Resource Center (SHDRC) which pools data from twenty vertical programs to one platform. Dr. Ramanan Laxminarayan introduced the Disease Control Priorities (DCP3) project which reviews about 300 interventions which policy makers can use in conjunction with other considerations to find the best "value for money" for health. He noted that it is not only about providing healthcare but also providing financial protection to people. Dr. Kalipso Chalkidou then spoke about iDSI's work in India and said that HTA can help decision makers make informed decisions in many areas including disinvesting from obsolete technologies. She added that the HTA process is the important part of the work as are distributional aspects of health. The last speaker on the panel was Dr. Prakongsai who gave an overview of the Thai UHC scheme, which is a tax-based system and has added procedures to the benefits package over the years. Further, health outcomes have been good with increased utilization and low unmet needs based on surveys and research.

For Technical Session III, Dr. Meenu Singh introduced chair, Mr. AA Talwar and co-chair, Prof. Anthony Culyer. Dr. KK Talwar gave the opening remarks. Vini Mahajan, Principal Secretary of Punjab pressed on the question on how a decentralized structure for HTA would look and suggested that could maybe done at a regional level. She also echoed the sentiment of "not making the best the enemy of the good". Speaking to the need of attracting questions for HTA, Dr. T. Sundararaman gave examples of health interventions in the country including a review of a sickle cell disease control program in Chhattisgarh. He called for understanding institutional arrangements, including building consensus, and urged to demonstrate credibility of HTA. He was followed by Dr. Prem Nair who explained that the Amrita Institute of Medical Sciences provides tertiary healthcare facility in southern India and has been looking at hospital based mini HTAs. He gave examples on how their work has been implemented providing a business case for HTA, in terms of cost savings. Dr. Sanjiv Kumar of the National Health Systems Resource Centre (NHSRC), who spoke after, commended the effort of setting up MTAB and for bringing together all the work on HTA in the country. He said that NHSRC provides technical support to the MoH&FW for the National Health Mission (NHM) and gave exaples of their work such as the National Health Innovation Portal and Standard Treatment Guidelines (STGs). Dr. Francoise Cluzeau then spoke about linking evidence-based medicine to policy using the example of STGs which was coordinated and managed by NHSRC with technical support from NICE International and iDSI. She said that this process involved working with several partners and topics such as hypertension and diabetes had been prioritized. Waranya Rattanavipapong then presented on the scope of HTA and how HITAP has gone beyond the clinical and medical aspects to health promotion topics as proposed by various stakeholders. She presented three case studies including the evaluation of the School Health Promotion Program.

Day 3:

At the closing ceremony, organized by DHR and ICMR, Mr. Manoj Pant introduced the panel and thanked everyone. He said that during the workshop various stakeholders were involved including from the industry and army, bringing together a pool of excellent professionals. Dr. Soumya Swaminathan reflected on the outcomes of the workshop and discussed the key elements underpinning the process going forward. Dr. Soumya said that there is a demand for this kind of work as India looks to expand UHC and pointed to remarks by state health secretaries who want guidance to formulate policies in these areas as well as commitment from the Ministers of State to HTA. There

will be a dedicated budget line in the 7 year plan. In terms of next steps, she outlined the following: involving stakeholders by establishing a network and ensuring democratization of the process; keeping the channels of communication open between the centre and state; and develop capacity and identify gaps, saying that HITAP and NICE International have offered to help in this regard. She added that it was important to create credibility in the system so that MTAB's view on any matter is accepted. Regarding demonstration projects, one early exercise, she said, would be to take priorities voiced by state governments and prepare a report that can be delivered to the ministry.

Dr. Katoch, who spoke next, said that there is an interest in keeping the status quo and there may be many who challenge the legitimacy of the HTA process. He also said that learning about different countries also makes you think about what is feasible in India and called on the participants to take on the task going forward with the resources available.

Three participants then provided their impressions of the workshop. First, Prof. Muraleedharan V.R. said that that this workshop is part of an evolving process for HTA and stressed the need to adapt to the country context. He added that there is a need to establish the utility of HTA among stakeholders and think about the capacity needed. He was followed by Ms. Anindita Bhowmik who said that she appreciated the commitment shown by government and through the workshop, learned about many more structural matters and while knowledge was being gained, participants now had questions to think about. The third participant, Colonel VK Bhatti said that the workshop was an enriching experience and added that there was a need to formalize this process and address the key issue of implementation.

Dr. Yot then made a one slide presentation with the key message saying that setting up of an HTA depends on whether the policy makers really want to do HTA. Prof. Anthony Culyer likened the workshop to a graduate seminar where one measure of success is that the level of confusion has been increased; this is to suggest the value added by the seminar. He said that one of the main lessons learned over these two days is the importance of getting question right, emphatically stating: "What is the question. That is the answer". He noted that there is a shortage of health economists and reiterated that the agency hire the best Indian health economists, with either a Master's or a PhD in Health Economics, so as to make assertions credible to economists and non-economists alike.

Dr. Arvind Panagariya, head of the National Institution for Transforming India or NITI Aayog said that they endorse having the best health economics in the country. Research is very central to whatever is done in government although there has been a neglect of research in recent years. From an economist's perspective, he said that growth is extremely important. The scarcity of resources that India can spend on health is reflected in its low public spending, which committees have suggested to increase to 3% of GDP. He said that delivery by public sector has been limited. He gave two examples: in rural areas, the National Sample Survey Organisation (NSSO) found that 75% of outpatient treatment was done by low-trained workers and the probability of finding a doctor at the PHCs is low. He is looking at a two pronged strategy in India: one, there is a need to strengthen private sector and minimize problems that do exist. Given that public sector can only provide limited services there is a need to work at both ends ie provision of services and insurance. Further, medical education needs to be multiplied so that shortage of doctors can be overcome. This, he said, needs to be done in a big way and will be captured in a 15 year vision document.

Annex 3: Agenda: Topic Selection Workshop

DATED 26-27TH JULY, 2016

***Venue:* Magnolia Hall,**
Indian Habitat Centre, New Delhi

Topic Selection for HTA in India

Objectives:

- To raise awareness on topic selection on HTA
- To develop a protocol for topic selection for HTA in India

Outputs:

- Presentations and briefs from group work
- Summary of results from survey on HTA in India
- Workshop Report on Topic Selection including results of evaluation
- A draft protocol on topic selection for India to be developed afterwards based on inputs from the workshop (led by NICE International)

Schedule:

Topic Selection for HTA - Day 1 of 2 (26th July, 2016)				
Time	**Session**	**Description**	**Type**	**Person (s) Responsible**
9:00-10:00 (1 hour)	Importance of Topic Selection in HTA	• Introduction • Why do we need to do HTA for topic selection? • Political economy of HTA	Lecture	Chair: Dr. V.M. Katoch, Former Secretary (DHR) & DG, ICMR Lead: Dr. Yot Teerawattananon
10:00-12:00 (2 hours)	Group Exercise on Investment/Disinvestment	• Groups discuss criteria to be used for selecting topics and stakeholders involved. • Groups present on discussion and rationale	Group Work	Lead: Ms. Alia Luz Support: NI/HITAP Facilitators
Lunch				
13:00-15:00 (2 hours)	Topic Selection Process in Different Settings	• Panelists will present on HTA topic prioritization in different settings, Thailand, EuroScan, as well as provide an overview of the situation in India	Panel	Chair: Dr. RS Dhaliwal, Head (NCD), ICMR Moderator: Dr. Anthony Culyer Panelists: Ms. Benjarin Santatiwongchai Ms. Alia Luz Dr. Ravinder Singh

15:00-17:00 (2 hours)	Group Exercise on Applying Protocols for Topic Selection	• Participants will be divided into two groups: Group I = review topics using qualitative approach; Group II = review topics using a quantitative approach	Group Work	Lead: Mr. SongyotPilasant Support: NI/HITAP Facilitators
17:00-17:30 (1/2 hour)	Introduction to Multi-Criteria Decision Analysis (MCDA)	• Introduce key concepts of MCDA • Q&A	Lecture	Dr. SitapornYoungkong
Topic Selection for HTA - Day 2 of 2 (27th July, 2016)				
8:30-11:30 (3 hours)	Brainstorming Session for Topic Selection Process in India	• Participants will be divided into two groups: Group I = identifying stakeholders; Group II = determining topic selection criteria	Group Work	Lead: Dr. SitapornYoungkong Support: NI/HITAP Facilitators
11:30-13:00 (1.5 hour)	What is Important After Topic Selection?	• Panelists will discuss the role of communications in topic selection, implementation of prioritized research topics and share perspectives from the UK and India.	Panel	Chair: Dr. Chander Shekhar, Head (ITR & CH), ICMR Lead: Prof. Bruce Campbell Panelists: Ms. Karlena Luz Dr. Yot Teerawattananon Dr. Laura Downey Dr. Jitender Sharma, NHSRC
13:00-13:10	Windup remarks	Dr. Yot Teerawattananon, Founding Leader, HITAP		
Closing ceremony 13:10-14:15				
Welcome		Dr. Soumya Swaminathan, Secretary (DHR) & Director General, ICMR		
Reflections of the workshop		Dr. Rakesh Kumar, Sr. DDG (A), ICMR		
Remarks		Prof. Anthony Culyer		
Remarks		Dr. V. M. Katoch, Former Secretary, DHR and DG, ICMR		
Remarks by Guest of Honour		Sh. B. P. Sharma, Secretary, Department of Health & Family Welfare, Ministry of Health & Family Welfare		
Remarks by Chief Guest		Shri Arvind Panagariya, Vice-Chairman, NitiAayog		
Vote of Thanks		Dr. Ashoo Grover, Scientist, ICMR		
LUNCH				

Master of Ceremonies (MC):
26 July: Ms. Saudamini Dabak and Ms. Waranya Rattanavipapong
27 July: Ms. Benjarin Santatiwongchai

Materials:
- Video: "Power of HTA". Link: https://www.youtube.com/watch?v=QnmnyZ14A4w,
- "Price of Life": http://thepriceoflife.net/

Annex 2: List of Attendees: Topic Selection Workshop

Sr. No.	Name	Organisation
1	Dr. Soumya Swaminathan	Secretary, Department of Health Research & Director General, Indian Council of Medical Research
2	Shri Manoj Pant	Joint Secretary, Department of Health Research, New Delhi
3	Dr. Rakesh Kumar	Sr. Deputy Director General (A), Indian Council of Medical Research, New Delhi
4	Shri Vivek Kumar	Jr. Statistical Officer, Ministry of Health & F.W., Nirman Bhawan, New Delhi
5	Dr. V.M. Katoch	Former Secretary and DG, ICMR
6	Shri Arvind Panagariya	Vice-Chairman, NITI Aayog, New Delhi
7	Shri B.P. Sharma	Secretary, Health, Ministry of Health & Family Welfare, Nirman Bhavan, Maulana Azad Road, , New Delhi
8	Dr. Chander Shekhar	Head, Division of ITR & CH, Indian Council of Medical Research, New Delhi
9	Dr. R.S. Dhaliwal	Head, Division of NCD, Indian Council of Medical Research, New Delhi
10	Shri. V.K. Gauba	Joint Secretary, Department of Health Research, New Delhi
11	Dr. Phusit Prakongsai	Health Intervention and Technology Assessment Program (HITAP), Thailand
12	Dr. Yot Teerawattananon	Health Intervention and Technology Assessment Program (HITAP), Thailand
13	Ms. Alia Luz	Health Intervention and Technology Assessment Program (HITAP), Thailand
14	Ms. Benjarin Santatiwongchai	Health Intervention and Technology Assessment Program (HITAP), Thailand
15	Ms. Karlena Luz	Health Intervention and Technology Assessment Program (HITAP), Thailand
16	Dr. Sitaporn Youngkong	Health Intervention and Technology Assessment Program (HITAP), Thailand
17	Mr. Songyot Pilasant	Health Intervention and Technology Assessment Program (HITAP), Thailand
18	Ms. Waranya Rattanavipapong	Health Intervention and Technology Assessment Program (HITAP), Thailand
19	Ms. Saudamini Dabak	Health Intervention and Technology Assessment Program (HITAP), Thailand
20	Prof. Anthony Culyer	Emeritus professor, York University, University of Toronto & Chair iDSI, UK
21	Prof. Bruce Campbell	NICE International, UK
22	Dr. Kalipso Chalkidou	Director, NICE International, UK
23	Dr. Francoise Cluzeau	Associate Director - NICE International, National Institute for Health and Care Excellence, UK

24	Dr. Laura Downey	Technical analyst- NICE International, National Institute for Health and Care Excellence, UK
25	Dr. Abha Mehndiratta	India Technical Advisor, NICE International
1	Dr. Ashoo Grover	Scientist, Indian Council of Medical Research
2	Dr. Ravinder Singh	Scientist, Indian Council of Medical Research
3	Dr. Sanjay Mehendale	Director, National Institute of Epidemiology, Chennai
4	Dr. Ganesh Kumar	Scientist , National Institute of Epidemiology (NIE), Chennai
5	Dr. Subarna Roy	
6	Dr. S.L. Hoti	Director, Regional Medical Research Centre (RMRC), Belgaum
7	Dr. A.P. Sugunan	
8	Dr. A.N. Shriram	
9	Dr. Alok K Deb	
10	Dr. Santasabuj Das	Scientist , National Institute of Cholera and Enteric Diseases (NICED), Kolkata
11	Dr. Aditya Parashari	
12	Dr. M. Muniyandi	
13	Dr. Anju Bansal	Scientist , National Institute of Pathology, New Delhi
14	Dr. Tanvir Kaur	Scientist , Indian Council of Medical Research
15	Dr. Meenakshi Sharma	Scientist , Indian Council of Medical Research
16	Dr. Sadhna Srivastava	Scientist, Indian Council of Medical Research
17	Dr. Anju Sinha	Scientist, Indian Council of Medical Research
18	Dr. Manju Rahi	Scientist, Indian Council of Medical Research
19	Dr. Deepika Saraf	Scientist, Indian Council of Medical Research
20	Shri Manoj Kumar Singh	National Health Systems Resource Centre, New Delhi
21	Ms. Jyoti Jagtap	National Health Systems Resource Centre, New Delhi
22	Ms. Shikha Yadav	National Health Systems Resource Centre, New Delhi
23	Dr. Kabir Sheikh	Senior Research Scientist and Adjunct Associate Professor, Public Health Foundation of India (PHFI), Gurgaon
24	Dr. Pratap Tharyan	Professor, South Asian Cochrane Network & Centre, Christian Medical College, Vellore

25	Dr. Divya Elizabeth Muliyil	Christian Medical College, Vellore
26	Dr. Navneet Dhaliwal	Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh
27	Dr. Shankar Prinja	Associate Professor of Health Economics, School of Public Health, Post Graduate Institute of Medical, Education and Research (PGIMER), Chandigarh
28	Dr. Meenu Singh	Professor of Paediatrics, Postgraduate Institute of Medical , Education and Research (PGIMER), Chandigarh
29	Prof. Muraleedharan V.R.	Professor, Indian Institute of Technology Madras / HEAI, Department of Humanities and Social Sciences, , IIT P.O., Chennai
30	Dr. Sanjeev Singh	Professor, Amrita Institute of Medical Sciences (AIMS), AIMS Ponekkara P.O., Kochi, Kerala
31	Prof. Vivekananda n Perumal	IIT Delhi
32	Prof Amit Mehndiratta	IIT Delhi, New Delhi
33	Prof Rohit Srivastava	
34	Dr. Nirmala N Rege	
35	Dr. V. Raman kutty	Professor, Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical (SCTIMST), Thiruvananthapuram
36	Prof Kanchan Mukherjee	Professor and Chairperson, Centre for Health Policy, Planning and Management, School of Health Systems Studies, TATA Institute of Social Sciences, V.N. Purav Marg, Deonar, Mumbai 400088
37	Dr. Harikumaran Nair	Professor, Department of Radio Diagnosis, Government Medical College, Alappuzha
38	Dr. Muraly. C.P.	Assistant Professor, Department of Pulmonology, Government Medical College, Thrissur
39	Dr. Anish. T.S.	Assistant Professor, Department of Community Medicine, Government Medical College, Thiruvananthaouram, Kerala
40	Dr. Darez Ahmed	Project Director, NHM, Tamil Nadu
41	Dr. M. Chandrasheke r	
42	Dr A. Ravi Shankar, I.P.S	
43	Dr. Anindita Bhowmik	Suvarna Arogya Suraksha Trust - Bangalore , TTMC Building, "A" Wing, 4th Floor, K H Road, Bangalore
44	Shri Larry Rymbai	
45	Shri Mebanshailan g R. Synrem	
46	Dr. P. K. S. Sarma	
47	Ms. Sonia Gandhi	BIRAC, New Delhi

48	Dr Sheena Chhabra	Senior Health Specialist, Global Practice on Health, Nutrition and Population, The World bank, 70 Lodi Estate, New Delhi
49	Mallika Ahluwalia	Senior Program Officer, BMGF India Office, Bill & Melinda Gates Foundation, Capital Court Building, 3rd floor, Olof Palme Marg,, Munirka, New Delhi
50	Dr. Joseph Mathew	
51	Dr. K.K. Bhutani	Professor, NIPER, Mohali
52	Suresh K. Gupta	
53	Dr. S.S. Agarwal	National President, Indian Medial Association, Jaipur
54	Dr. Jeeva Sankar	Asstt. Professor, AIIMS, New Delhi
55	Dr. Anu Thukral	Asstt. Professor, AIIMS, New Delhi
56	Prof Arup Mitra	
57	Prof B K Pradhan	
58	Shri D.B. Gupta	
59	Prof M R Narayana	
60	Dr. Kheya Melo Furtado	Young Professional, NITI Aayog, New Delhi
61	Shilpa Karvande	Sr. Researcher, The Foundation for Medical Research., Dr. Kantilal J. Sheth Memorial Building,, 84-A, R.G. Thadani Marg,, Worli,Mumbai
62	Dr. Deepinder Singh	Deptt. of Health & F.W., Punjab
63	Ms. Krithika Raghavan	WISH Foundation, New Delhi
64	Mr Rahul Mullick	
65	Mr Suhel Bidani	
66	Dr. Jitender Sharma	NHSRC, New Delhi
67	Shri Arif Fahim	Chair, AdvaMed India's Health Economics and Reimbursement Sub-Group, at St. Jude Medical, St. Jude Medical, Okhla Industrial Area, Delhi
68	Dr. Nishant Jaiswal	Evidence Based Child Health, PGIMER
69	Dr. Shalini Singh	Department of Reproductive Biology & Maternal Health, ICMR
70	Dr. T. Sundararaman	Dean, School of Health Systems Studies, TATA Institute of Social Sciences, , V.N. Purav Marg, Deonar, , Mumbai
71	Col. V.K. Bhatti	Director Medical Services (Health), R.No.1 O/o DGMS Army 'L' Block, New Delhi
72	Dr. Kiran Kumari	PGIMER

73	Dr. Roopa Hariprasad	Scientist, National Institute of Cancer Prevention and Research (NICPR), Noida
74	V. Soopaj	CDSCO, HQ, New Delhi
75	Dr. Prem Nair	Medical Director, Amrita Institute of Medical Sciences (AIMS), AIMS Ponekkara P.O., Kochi, Kerala
76	Lt. Col. Reema Mukherjee	ADH HQ Delhi Area
77	Lt. Col. T.K. Gupta	Army, DGMS, New Delhi
78	Col. J.S. Murali	O/o DGMS (Army) Delhi
79	Dr. Neeta Kumar	Scientist, Indian Council of Medical Research

Source: List of participants received from Dr. Ravinder Singh. Reconciled, where possible, from list of participants in groups.

Annex 4: Evaluation Forms: Supporting Tables

Event Feedback

Response Rate:		
	N	Remarks
# Respondents	17	Number of completed questionnaires returned
# Participants	60	Number of participant packs with evaluation questionnaires distributed
Response Rate	28%	

Use the scale below to show your agreement with each statement:			
#	Question	# Responses	Score
1	The aims and objectives of the event were clear and well defined.	17	3.4
2	The content of the event (presentations, pre-reading) was well matched to participants' needs and understanding about the topic(s).	17	3.5
3	The event has provided me with information that will influence what I do.	17	3.5
4	There are things that I will do as a direct result of my participation in this event.	17	3.4

Session-wise Feedback

Response Rate:		
	N	Remarks

# Respondents	19	Number of completed questionnaires returned
# Participants	60	Number of participant packs with evaluation questionnaires distributed
Response Rate	32%	

Score

Lecture and Panel Sessions					
Session Title	My knowledge on the focus of the session has increased	The presenter was knowledgeable on the subject	The materials distributed were helpful	Participation and interaction were encouraged	I will apply the knowledge gained during this session after the workshop
Importance of Topic Selection in HTA	4.2	4.5	4.2	4.6	4.3
Topic Selection Process in Different Settings	4.3	4.3	4.2	4.6	4.4
What is Important After Topic Selection?	3.9	4.2	4.1	4.8	4.3
Average	4.1	4.3	4.1	4.7	4.3

Group Work Sessions				
Session Title	The facilitators for the group work session were well prepared	Working in a group added value to my learning experience	The materials distributed were helpful	Participation and interaction were encouraged
Group Exercise on Investment/Disinvestment	4.5	4.6	4.4	4.9
Group Exercise on Scope of HTA	4.6	4.7	4.4	4.9
Brainstorming session for Topic Selection Process in India	4.7	4.7	4.3	4.9
Average	4.6	4.7	4.3	4.9

Number of respondents

Lecture and Panel Sessions					
Session Title	My knowledge	The presenter was	The materials	Participation and	I will apply the knowledge

	on the focus of the session has increased	knowledgeable on the subject	distributed were helpful	interaction were encouraged	gained during this session after the workshop
Importance of Topic Selection in HTA	18	19	18	19	19
Topic Selection Process in Different Settings	18	19	18	19	19
What is Important After Topic Selection?	18	19	18	19	19

Group Work Sessions				
Session Title	The facilitators for the group work session were well prepared	Working in a group added value to my learning experience	The materials distributed were helpful	Participation and interaction were encouraged
Group Exercise on Investment/Disinvestment	15	15	15	15
Group Exercise on Scope of HTA	14	14	15	14
Brainstorming session for Topic Selection Process in India	15	15	15	15

% Strongly Agree

Lecture and Panel Sessions					
Session Title	My knowledge on the focus of the session has increased	The presenter was knowledgeable on the subject	The materials distributed were helpful	Participation and interaction were encouraged	I will apply the knowledge gained during this session after the workshop
Importance of Topic Selection in HTA	22%	47%	28%	68%	42%
Topic Selection Process in Different Settings	33%	37%	28%	68%	47%
What is Important After Topic Selection?	11%	32%	22%	79%	37%
Average	22%	39%	26%	72%	42%

Group Work Sessions				
Session Title	The facilitators for the group work session were well prepared	Working in a group added value to my learning experience	The materials distributed were helpful	Participation and interaction were encouraged

Group Exercise on Investment/Disinvestment	53%	60%	47%	87%
Group Exercise on Scope of HTA	57%	71%	40%	86%
Brainstorming session for Topic Selection Process in India	67%	67%	40%	87%
Average	59%	66%	42%	86%

Annex 5: List of HITAP Activities in India

Sr. No.	Description	Organizations/ Persons	HITAP Staff involved	Reports/Outputs
1	Training on Health Economic Evaluation of Disease Burden Location: Nonthaburi, Thailand Date: 3 - 27, January, 2012	Medical Schools (PGIMER, AIIMS), Government Insurance Scheme (CGHS), Non-Communicable Disease Programme/Centre	Dr.YotTeerawattananon Jomkwan Yothasamut, PattaraLeelahavarong, Pitsaphun Werayingyong, Pritaporn Kingkaew, SitapornYoungkong, Songyot Pilasant, Wantanee Kulpeng, Waranya Rattanavipapong	Training Materials List of participants
2	Primary research for Tufts manuscript Location: Bangalore, Chennai & Delhi, India Date: February, 2014	Interviewed people from IIT Madras, among other organisations.	Dr. Yot Teerawattananon, Nattha Tritasavit	N/A
3	Workshop: Priority setting and Health Technology Assessment for Universal Health Coverage in India, Location: Delhi, India Date: 10th & 11th October, 2014	Workshop organized by NICE International	Dr. Inthira Yamabhai	Report prepared by NICE International. Available at: http://www.idsihealth.org/wp-content/uploads/2015/04/Better-Decisions-for-Better-Health-Delhi-Final-Report.pdf
4	Visit to HITAP during PMAC 2015 Location: Nonthaburi, Thailand Date: 27 January, 2015	Visitors: Shri Manoj Jhalani, Joint Secretary Dr. Rakesh Srivastava, ICMR, Dr. Somil Nagpal, The World Bank NICE International Staff	Benjarin Santatiwongchai	N/A

5	National Workshop: Economic Evaluation in Health Care Location: Chandigarh, India Date: 30th November - 3rd December, 2015 HITAP attended: 1-3 December, 2015	Workshop organized by Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh	Dr. Yot Teerawattananon, Alia Luz, Chalarntorn Yothasmutra, Nitichen Kittiratchakool, Waranya Rattanavipapong, Saudamini Dabak	"Report On The Workshop On Economic Evaluation In Healthcare Chandigarh, India", prepared by HITAP
6	India Side Event, PMAC 2016 Location: Bangkok, Thailand Date: 27th January, 2016	Organised by Dr. Somil Nagpal, The World Bank	Dr. Yot Teerawattananon, Saudamini Dabak	Presentation
7	DHR-ICMR-iDSI Collaborative: "Health Technology Assessment (HTA)- Stakeholders' Consultative Workshop" HITAP led Topic Selection component of workshop Location: New Delhi, India Dates: 25-27 July, 2016	Organised by Indian Council of Medical Research (ICMR) and NICE International (iDSI)	MoPH: Dr. Phusit Prakongsai HITAP: Dr. Yot Teerawattananon, Alia Luz, Benjarin Santatiwongchai, Karlena Luz, Sitaporn Youngkong, Songyot Pilasant, Waranya Rattanavipapong, Saudamini Dabak	Presentations, Survey on need, demand and supply of HTA in India, Workshop Report

Annex 6: Training Materials

The materials distributed to participants are available at the following link:

https://drive.google.com/open?id=0B0ShhH8jN2JOMkdVajYxNEZzb2s