
ENGLISH
VERSION
FIRST
STEP
Health Intervention and Technology Assessment Program, HITAP
9 786161 102593

FIRST STEP

ISBN 978-616-11-0259-3

Evaluating HITAP : 2 years on
HITAP's responses to key recommendations
Comments on Evaluating HITAP : 2 years on

Health Intervention and Technology Assessment Program, HITAP
December 2009

PREFACE

The term "first step" reflects the commencement of a journey or an inauguration. In view of the Health Intervention and Technology Assessment Program (HITAP) - an evidence-generating organization for supporting national health policy decisions - a comprehensive assessment of its first two years of operation is crucial.

This report comprises 3 chapters, and is the result of-a number of partners' collaborative efforts. Chapter 1 presents the results of HITAP review conducted by 4 external evaluators over a nine month-period. This review provides an insight into the strengths and weaknesses of this health technology assessment initiative since its establishment in 2007. Chapter 2 is drawn on thorough discussion amongst HITAP staff, and aims to address the evaluators' recommendations, as well as to seek optimal strategies for further development of the program. Chapter 3 illustrates comments regarding HITAP assessment and also contains a number of additional suggestions made by UK experts in health economics. This helps to extend the benefits of the evaluation as several diverse observations have been obtained.

We hope that the dissemination of this report will be helpful for both those directly involved in health technology assessment and those involved with policy research, including policymakers, health professions and researchers in different institutes. Furthermore, it is hoped that the distribution of our experiences and lesson learned indicates transparency, as a component of good governance organization.

We are deeply grateful to the Thai Health Promotion Foundation for the grant which provided to carry out the HITAP evaluation. Also, our sincere thanks go to the Health Systems Research Institute, the Ministry of Public Health's Bureau of Policy and Strategy, the National Health Security Office and many other agencies for their support to HITAP during its first phase (2007-2009).

The title "first step", implies that subsequent steps will be undertaken until the ultimate goal of our organization can be achieved. We aim to ensure that all the successes, challenges and pitfalls throughout the HITAP journey will be assessed for future improvement. Our first step was fulfilled with the program evaluation, analytical learning and organizational development as illustrated in this report.

HITAP
10th December 2009

CONTENT

Evaluating HITAP: 2 years on

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1. SCOPE OF THE EVALUATION

The Health Intervention and Technology Assessment Program (HITAP) is non-profit organisation established in Thailand in January 2007 under the auspices of the Bureau of Health Policy and Strategy of the Ministry of Public Health (MoPH). Its funding comes from the Thai Health Promotion Foundation, the MoPH, the Thai Health Systems Research Institute, the Health Insurance System Research Office and other international agencies such as the Global Development Network, the World Bank and WHO.

HITAP has adopted four main strategies to fulfill the mission to influence decision making related to health technology and health interventions at various policy levels in Thailand. These strategies are: 1) research and development of fundamental knowledge and infrastructure for HTA; 2) human capacity strengthening; 3) assessment of health interventions and technologies; and 4) research and development of appropriate HTA management and social mobilization[1]. This analysis aims to provide evidence-based systematic feedback for HITAP on all four strategies.

These four strategies will be investigated in order to provide answers to the following key questions :

- Are the strategies relevant to the preset mission and vision of HITAP?
- How useful are the four strategies to Thai society?
- What areas does HITAP need to improve?
- What are the strengths and weaknesses with respect to the strategies?
- What is the quality of the outputs of the strategies?

HTA in Thailand

HITAP was established to :

- "Appraise efficiently and transparently health interventions and technologies using qualified research methodology
- Develop systems and mechanisms to promote the management of health technology as well as appropriate health policy determination
- Distribute research findings and educate the public in order to make the best use of the results"

[1] Tantivess S, Teerawattananon Y, Mills A. Strengthening cost-effectiveness analysis in Thailand through the establishment of the Health Intervention and Technology Assessment Program. Pharmacoeconomics. 2009; 27(11):931-45.

Currently, HITAP has no legal authority to make healthcare resource allocation decisions; its role is strictly advisory to MoPH and other national Thai authorities. However, through the revision of the National List of Essential Medicines (NLED 2008) and the requirement for consideration of costs when licensing medical devices (Medical Devices Act 2008) the role of HTA, carried out by HITAP, is becoming increasingly linked to policy. In order to standardise HTA, national methods guidelines for carrying out economic evaluation as part of HTA were developed in 2008[2]. This effort formally began a year earlier with the establishment Health Economics Working Group by the Subcommittee for the Development of NLED, in 2007. The methods guidelines were the result of a multidisciplinary consultative process based on the international experience and tailored to the needs of Thai policy makers and subject to resource limitations in Thailand[3]. The guidelines were published in the Journal of the Medical Association of Thailand in 2008 and they form the basis of the assessment that follows.
The methods guidelines form part of the first Strategy of HITAP as depicted below.

Strategy I : ***development of methods guidelines***

- Development of the national health technology assessment guidelines
- Thai HTA research database
- Establishment of societal value for a ceiling threshold in Thailand

Strategy II: ***human capacity development***

- Survey of research capacity and gaps in HTA
- HTA training fellowships
- Annual HTA training for researchers and policy makers

Strategy III: ***undertaking HTA to address policy makers' needs***

- Conducting 10-15 HTA studies per year (including economic modeling; RCTs; meta-analyses and observational studies)

Strategy IV: ***HTA management and processes for undertaking HTA***

- Development of effective mechanisms/systems for management of HTA in Thailand
- Public education and dissemination

[2] Wibulpolprasert S. The Need for Guidelines and the Use of Economic Evidence in Decision-Making in Thailand: Lessons Learnt from the Development of the National List of Essential Drugs. J Med Assoc Thai. 2008;91 Suppl 2:S1-3.
[3] Tangcharoensathien V, Kamolratanakul P. Making sensible rationing: the use of economic evidence and the need for methodological standards. J Med Assoc Thai. 2008;91 Suppl 2:S4-7.

Figure 1: Diagram showing the linkage of HITAP's 4 strategies

HITAP invited the authors (two Thai and two UK experts) to evaluate the work of HITAP. Following series of teleconferences and email iterations, the evaluators and HITAP leads agreed on the Terms of Reference, outputs and timing of the evaluation.

2. METHODS

Strategy I : The Drummond et al.[4] framework was adapted as the basis for this analysis. This framework provides a set of 15 key principles against which the conduct of HTA for healthcare resource allocation decisions can be evaluated. The principles are grouped into four broad categories: (a) structure; (b) methods; (c) processes; and (d) use of HTA in decision-making. There is some overlap between these groups and the actual taxonomy is, to an extent, subjective. To facilitate the analysis, we separated some of the principles into 'sub-principles'.

A 'Reference Case' [5,6], is often used as the basis for assessing methodological guidelines for the conduct of HTA, along with the Drummond quality checklist for economic evaluation.[7] However, the Drummond framework is much broader and encompasses, in addition to methodological attributes, organizational, structural and societal characteristics, not captured through the Reference Case or quality checklists. Some of these less technical aspects of HITAP's work were also assessed in the context of Strategy IV. Overall, it is difficult, and in some cases inappropriate, to distinguish between the process and methods aspects of HTA, especially when this is undertaken with the aim of informing health policy. This is an additional reason for selecting the Drummond framework. However, for more in-depth analysis of the process and implementation principles (Principle 9-15) we refer the reader to the evaluation of strategy IV.

A major limitation of this part of our evaluation is that it relied solely on materail translated in English.

In evaluating the Thai methods guidelines against each of the 15 principles of the Drummond framework, the authors used their experience and knowledge of the methodological and procedural rules applied by HTA and/or decision-making entities in other countries, such as the National Institute for Health and Clinical Excellence (NICE) and the Scottish Medicines Consortium (SMC) in the UK; the French National Authority for Health (HAS) in France; the German Institute for Quality and Efficiency in Health Care (IQWiG) and the Australian Pharmaceutical Benefits Advisory Committee (PBAC).

[4] Drummond MF, Schwartz JS, Jönsson B, Luce BR, Neumann PJ, Siebert U, et al. Key principles for the improved conduct of health technology assessments for resource all ocation decisions. Int J Technol Assess Health Care. 2008;24(3):244-58.
[5] Gold MR, Siegel JE, Russell LB, Weinstein MC. Cost-effectiveness in health and medicine.New York: Oxford University Press; 1996.
[6] National Institute for Clinical Excellence. Guide to the methods of technology appraisal. London: National Institute for Clinical Excellence; 2004.
[7] Drummond MF, Sculpher MJ, Torrance GW, O'Brien BJ, Stoddart GL. Methods for the economic evaluation of health care programmes. 3rd ed. Oxford: Oxford University Press; 2005.

Scope and conceptual framework : Review of the methods guidelines used by HITAP for the evaluations, with a focus on their scientific rigour and relevance to the stated priorities of HITAP.

Evaluation inputs: (a) HITAP methodological guidelines ; (b) Peer reviewed publications on history and methods of HITAP; (c) Informal discussion with Thai evaluators and HITAP staff; (d) HITAP staff/Advisory Board/ evaluator meeting held in Bangkok in March 2009.

Strategy II : The scope of the evaluation of the strategy II was limited to two activities, expansion of researchers' competency and capacity, and the training in Economic Evaluation provided by HITAP. There are five sub-activities related to expanding the researchers' competency and capacity – namely on-the-job training, providing scholarships for further study, a journal club, external seminars and training, and a regular office meeting.

To evaluate the activity related to expansion of researchers' competency and capacity, we adopted the CIPP (context, input, process, and product) approach, which is widely used in evaluation literature. Instead of focusing on evaluating products or outcomes of the activity, we looked at linkages between inputs and outcomes. Particularly, we evaluated context, input, process, and product of the activity separately and then linked the evaluation of outcomes to the others. This allowed us to identify causes of success and failure of the activity.

In each stage of evaluation, we sought answers to the following questions :

Context evaluation : how relevant is the activity to the objective of the strategy II?
Input evaluation : how sufficient are the resources used in the activity?
Process evaluation : how effective is the activity to strengthen human compacity?
Product/outcome evaluation : how does the activity affect research capability of HITAP researchers, and how does the activity affect research output?

Data used in the evaluation came from three sources. The first source was a questionnaire distributed to all HITAP researchers in January 2008. The second was interviews with the HITAP director, mentors, and researchers. The last source was HITAP documents, for example annual reports, progress reports, newsletter, programs, etc.

To evaluate HITAP training, we made use of HITAP's own evaluation of economic evaluation training in 2008. Following the HITAP evaluation, we evaluated the training by: the quality of content, staff, lecturers, and facilities; and benefits received from training. In addition to the results of the HITAP evaluation, we gathered additional qualitative information in order to gain better understanding of strengths and weaknesses of the training by interviewing some of the participants and from a focus group of former participants.

Strategy III: We evaluated this strategy by reviewing HITAP's distinctive approach to topic selection, and also by examining the extent and nature of the published output produced by HITAP. A selection of these research outputs was reviewed in detail in order to confirm the quality of the research outputs. A limitation here is that the review was restricted to documents available in English

Strategy IV : In order to meet the objectives the following methods were employed to gather data and information:

1. Review of policies and objectives of HITAP using relevant documents (such as proposals to funders, progress reports, annual reports) available at HITAP.
2. Review of material relevant to the strategy e.g., press release, circulations to specific target audiences etc.
3. Interviews/focus groups with stakeholders split into two groups (a) HITAP Director, an accountant, a project manager and public relations officer; (b) groups of researchers, users and funders involved in each of four selected projects. Projects were selected according to their relevance to the evaluation objectives, level of

utilization (micro, meso or macro level) and scope (health care system or health system).

4. Survey of work climate on all (35) HITAP staffs using work group climate assessment form develop by Management Science for Health[8].

Inputs from the aforementioned methods were analysed using theme analysis[9] and cross triangulation[10] methods. The analysis also took into account the degree of maturity of HITAP and plausible levels of achievements (outputs, outcomes or impacts).

A major limitation of the evaluation methods was non-representative selection of the projects and interviewees.

[8] Bahamon C, editor. Management strategies for improving health services. The manager. Boston: MSH Publications; 2002. 11 no. 3:1-22.
[9] Boje DM. Narrative methods for organizational & communication research. London: SAGE Publications Ltd; 2001.
[10] Meijer PC, Verloop N, Beijaard D. Multi-method triangulation in a qualitative study on teachers' practical knowledge: an attempt to increase internal validity. Qual Quant. 2002;36(2):145-67.

3. FINDINGS

HITAP has made significant progress with respect to fulfilling all four strategies. Since its establishment in early 2007, there have been significant improvements in the infrastructure for undertaking HTA in Thailand (e.g. Thai database; training and capacity building; methods guidelines) and also in the way HTA evidence feeds into policy (NLED 2008; Medical Devices Act 2008; national cervical screening policy etc).

> HITAP's impact has been national and international, with formal agreements with agencies in Korea (HIRA) and the UK (NICE) as well as international academic institutions.

Consistent to its mission and vision and within a short timeframe (two years) and relatively limited human and financial resources, HITAP has managed not only to develop a set of robust methods to guide the consistent and transparent development of HTA research (strategy I), but also to deliver on a large number of specific HTA products (strategy III) with often significant influence on policy and practice (strategy IV), while, at the same time, strengthening the country's HTA capacity (Strategy II).

HITAP's impact has been national and international, with formal agreements with agencies in Korea (HIRA) and the UK (NICE) as well as international academic institutions. HITAP can serve as an international model for other low and middle income countries interested in setting up HTA agencies, and for IFIs around the world.

Vision and mission

HITAP formulated its vision and mission based on results from literature reviews and brainstorming sessions among the pioneers (currently acting as HITAP program leaders) and some members of the Advisory Committee[11]. The literature reviews tried to draw past lessons from Thailand on (a) the historical development of

[11] Health Intervention and Technology Assessment Program [Online]. 2008 [cited 2008 Dec 25]; Available from: http://www.hitap.net/history_en.php.

> HITAP has made significant progress with respect to fulfilling all four strategies.

HTA; (b) economic evaluation in terms of methodologies and scientific rigour; and (c) policy making and roles of HTA. Results of the reviews clearly identified major weaknesses in the past development of HTA, such as scarcity of economic evaluation, lack of bodies focusing on HTA and some methodological pitfalls in existing economic evaluations. These findings could be considered to be supportive of HITAP's vision of health interventions and technologies appropriate to Thai society. They were also supportive of the missions encompassing (a) generating knowledge of HTA through transparent and efficient processes; (b) influencing selection, procurement and management of health technology as well as policy decisions by developing mechanisms and systems; (c) developing new mind sets in the public conducive to making the best use of HTA reports and building capacity among policy makers, researcher community and other relevant stakeholders.

Vision and mission are meaningless if they don't lead to collective action based on mutual agreement and understanding of stakeholders inside and outside an organization. In-depth interview with HITAP staff revealed consistent messages among interviewees reflecting commonly shared vision and missions i.e., HITAP was considered a not-for-profit organization conducting HTA and health policy assessment for policy decisions relevant to the public interest. To outsiders, HITAP is an impartial and capable organization focusing on HTA and/or policy assessment using economic analysis. However, HTA seems to be the more obvious function to outsiders than policy assessment.

> these interlinked strategies were promising as a means of filling the major gaps identified from the reviews of the past development of HTA.

Shared vision and missions among the stakeholders seems to be a result of various processes designed to actively involve them e.g., topic selection, conduct of projects, dissemination of findings. For instance, topic selection[12] involved 15 public agencies covering health care financing agencies and policy makers in the MOPH with a response rate of up to 80%.

In order to fulfill its vision and mission, HITAP developed four interlinked strategies: strategy I to develop a fundamental system; strategy II to build human capacity; strategy III to engage in high quality knowledge generating activities; and strategy IV to promote utilization of HTA knowledge. It could reasonably be argued that these interlinked strategies were promising as a means of filling the major gaps identified from the reviews of the past development of HTA.

Strategy I : Development of Methods Guidelines

The findings of the analysis of Strategy I are grouped into those applicable to HITAP and those that are relevant to the broader strategic and policy setting within which HITAP operates. A third group is specific to technical aspects of HITAP's operation as described in the methods guidelines.

a. HITAP level : The development of a process guide

One area HITAP could develop in the near future further to strengthen the relevance and adoption of its products, is that of a structured process for the development of HTA products. A process guideline, similar to the methods guideline discussed here, developed in an equally consultative and inclusive manner and made accessible to all interested stakeholders could help clarify a number of areas including:

[12] Lertpitakpong C, Chaikledkaew U, Thavorncharoensap M, Tantivess S, Praditsitthikorn N, Youngkong S, et al. A determination of topics for health technology assessment in Thailand: case study of making decision makers involved. Journal of Health Science. 2008;17:1-11. Thai.

• HITAP's official policy for stakeholder involvement :

o Identification of key stakeholders in Thai society and rationale for why they should (or should not) be involved in HITAP processes of HTA production.

o Description of means of engaging with these stakeholders – e.g. through workshops; postal/email consultation; expert testimonies; meeting observation; committee participation; right to appeal/challenge decision; citizens' juries; and deliberative poling methods.

o Development of processes to ensure stakeholder input influences the outcome and HITAP is held accountable for considering and responding to stakeholder input - e.g. requirement for publication of all comments and HITAP's responses to comments; independent peer review-type process to ensure due consideration was given to comments and a rationale for accepting or rejecting them provided

• An explicit contestability process such as appeals against HITAP recommendations when stakeholders disagree with the decisions.

o Grounds for appeals

o Handling of appeals including appropriate processes for ensuring HITAP listens and revises its advice where necessary

• HITAP's communication and dissemination policy – e.g. electronic access; print material; lay versions of the guidance for non-expert audiences; dedicated workshops. As these means of dissemination are already in place at present, the challenge now is to make use of them effectively and efficiently.

• HITAP's approach to *eliciting* social attitudes and norms from the Thai society and *incorporating* such non-utilitarian considerations in the HTA process including equity and ethical norms.

b. Government level : ***Establishing formal structures for influencing policy***

HTA formally impacts policy through NLED as well as a number of other 'customers' of HITAP's products, including the Thai Health Promotion Foundation, benefit package subcommittees for insurance schemes (National Health Security; Social Security and, albeit to a much lesser degree, civil service insurance scheme). If enacted, the Medical Devices Act 2008 and similar legislation on pharmaceuticals, may also contribute significantly to turning research into policy.

HITAP, through policy maker champions, has managed to exert significant influence in policy but this has been in an ad-hoc way so far. Even though mandates and regulations do not necessarily improve uptake of

evidence-informed policies, currently the ability of HITAP to influence national policy and of decision makers to use evidence to make (possibly controversial) decisions, relies largely on informal relationships between HITAP and decision making bodies. Such relationships also determine HITAP's funding and may do so increasingly in the future.

In order fully to capitalize on the value of public investment in HITAP activities; improve the transparency and accountability of health policy decision making and ensure decisions are made consistently across different areas of health policy, more streamlined and structured (but not necessarily mandatory) processes may be required. Such formal structures will also ensure the HTA topics selected by HITAP are more policy-relevant and will empower policy makers to use HTA evidence when making decisions. Finally, such structures will allow better monitoring of HITAP's impact and hence improve accountability of both HITAP and policy makers. Such feedback mechanisms are necessary for regular review and improvement of HTA role in the Thai setting. It is for Thai policy makers to consider how the relationship with HITAP can be strengthened in the future.

c. Specific technical / procedural comments

i. The arrangements for regular review and update of the methods guideline should be made clear as well as a timetable for this update and the process to be followed.

ii. The arrangements for reviewing the individual research products should also be made explicit as well as specific triggers for such updates (e.g. publication of new study)

iii. The guidelines recommend the use of current (or most common) practice as the comparator technology of choice with some exceptions. However, this carries the risk of perpetuating inefficient practice (i.e. if the technology used in current practice happens to have diffused inappropriately).

iv. Do HITAP experts meet to discuss the evidence and finalise the HTA recommendations to policy makers? If so, are these meetings held in public? Is all evidence considered put in the public domain?

v. Have the implications on equity and efficiency through double counting (and possible overestimation of a technology's cost-effectiveness) of using the human capital approach for productivity costs been considered?

vi. The guidelines recommend full Probabilistic Sensitivity Analysis where possible and the inclusion of Cost-Effectiveness Acceptability Curves (CEACs) in the analyses. However, there are significant implications for information and technical skills in producing and interpreting CEACs and a risk of decision makers inappropriately using CEACs to assess implications of implementing a cost-effective option which might not always be the one with the highest expected net benefit.

vii. What is HITAP's approach to commercial and academic in confidence data?

viii. Has HITAP considered the option of conditional coverage (only in research) decisions (through prospective evidence generation in the context of a trial) when there is significant uncertainty around a new technology?

ix. What is HITAP's conflict of interest policy? How are conflicts defined, declared and handled? Who does the policy apply to?

x. How is industry involved in research generation and interpretation? Who should bear the burden of proof when there is a technology sponsor? Is there a role for industry driven submissions to address the capacity constraint in HITAP? How can the resulting risk of bias be addressed?

xi. How is the academic sector involved in research generation and interpretation of results? What is/ should be the balance between in-house and outsourced analyses?

Strategy II : Human Capacity Development

Context evaluation

- The objective of strategy II, to expand researchers' competency and capacity, is relevant to HITAP's missions because it aims to improve capacity of human resource used in HTA which is fundamental to accomplishing the missions.
- Sub-activities such as on-the job training, scholarship for further study, external seminars and training, the journal club, and office meetings are means to help HITAP meet its strategy II objectives. However, the contribution of each activity will vary.

Input evaluation

- In terms of budgeting, HITAP has put a high priority on strategy II, as 21.7% of its 3-year budget given by the Thai Health Promotion Foundation is allocated to implementing the strategy (the second largest share across strategies).
- During the first year and a half, there was a large budget surplus (about 37% of its 3-year budget). The surplus could be interpreted as a sign of inefficient use of the budget or HITAP's ability to find external sources of funds to implement the strategy II or both. Although, at this stage, it is still too early to justify how efficiently the budget has been used, it is important for HITAP to monitor and assess its future use of budget.
- In 2009, HITAP research staff consists of 5 mentors (2 of them are full-time) and 21 researchers (14 of them are full-time). The director of HITAP is also a mentor who not only does administrative tasks but also takes part in all HITAP projects.
- HITAP has a group of fairly high-quality research staff, as 75% of its research staff have at least a master degree and 25% of them have a Ph.D. (all but one of whom are mentors). In spite of good education, almost all of the researchers lack research experience, as on average, a non-Ph.D. researcher has 2.9 years of research experience (including time working at HITAP). In addition, the educational background of HITAP researchers is diversified (pharmacy, economics, population and social research, community medicine, MBA, communication etc.). This inexperienced and diversified group of researchers could slow down the overall capacity strengthening process and research productivity of HITAP.
- While the number of projects has been increasing, the number of researchers has not changed accordingly. On average, mentors excluding the director engaged in 5.3 projects in 2007 and 6.5 in 2008. On average, a researcher engaged in 2.1 projects in 2007 and 2.9 in 2008. The increase in workload raises important concerns whether sufficient mentor time is allocated to guiding researchers and whether there are sufficient mentors. This concern is highlighted by 28.6% of researchers (all inexperienced) thought that there were not enough mentors.
- The majority of HITAP researchers are satisfied with their salaries although they are significantly lower than in the private sector. By offering in-kind compensation such as a career path in HTA research and scholarships, HITAP is able to counteract its uncompetitive salary and thus manages to attract bachelor and master students to work for HITAP.

• The majority of researchers think that HITAP research facilities are sufficient[13], while a significant proportion of researchers think that research support is not sufficient. From the interview and questionnaire, the quality of support staff is also found to be an issue.

Process Evaluation

• In general, all sub-activities in the 2nd activity are helpful means of increasing research skills and knowledge, and encouraging participation and knowledge transfer among research staff. However, the extent to which sub-activities are helpful varies.

• On-the-job training is unanimously regarded as the most effective means. The success of the training is due to key factors such as the strong leadership of the HITAP director and brotherhood relationship between the mentors and the researchers, which partly arises from personalities of both mentors and researchers, and HITAP's flat organization. However, mentors' heavy workload is an obstacle to the training process as sometimes the mentors could not respond to the researchers' needs promptly.

• The Journal club, external seminars and training, and office meeting are not as effective as the on-the-job training. This is because researchers cannot regularly participate due to their heavy workload. In addition, sometimes the topics are not relevant and useful to their work and the participants could not fully discuss with others because they did not have time to prepare for the meeting. Participants in the office meeting often find that the presentation of colleagues' work progress is not directly useful to their work.

• It is clear that providing scholarships to researchers will contribute to HITAP capacity strengthening in the long run. Currently, HITAP has provided three scholarships to study abroad (two Ph.D. level and one Master level) and two scholarships to study in Thailand (both Master level). These persons will return to HITAP when they graduate.

Product Evaluation

In general, the context, the input, and the process of the strategy II has resulted in satisfactory products or outcomes as follows:

• All but one researcher (a PhD with 8-10 years of experience) view that working with HITAP helps develop their research skills.

• There is evidence that researchers' skill is improved, in the sense that researchers are able to contribute more to HITAP research. In 2008, some young researchers have started to be involved in the initial stages of research projects, such as defining research questions and writing research proposals. In addition, four researchers have become principal investigators.

[13] About 71% of the researchers agreed that resources for conducting research are sufficient.

“insufficient mentors and inexperienced researchers accompanied with increasing workload results in difficulties in project management. There have been an increasing number of delayed projects since the beginning of 2008.”

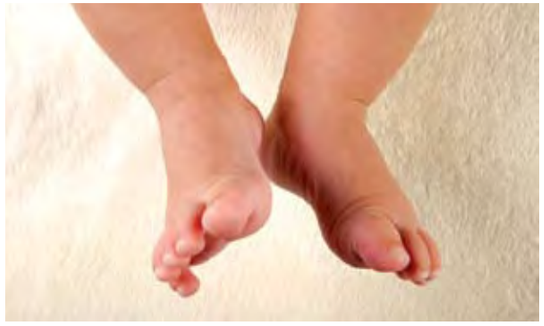
Despite accomplishments, insufficient mentors and inexperienced researchers accompanied with increasing workload results in difficulties in project management. There have been an increasing number of delayed projects since the beginning of 2008. This problem is getting more serious, and could potentially be a stumbling block towards HITAP's future development.

Training in Economic Evaluation (EE) provided by HITAP

• Overall, the EE training is useful for the participants. They are, in general, satisfied with the quality of content, staff, lecturers, and facilities and the benefits received from the training. Therefore, EE training is a way to help enhance HTA capacity outside of HITAP. However, some minor weaknesses and concerns were identified by the focus group, for example, the tuition fee might be too high for those who need the training the most; the duration of the training is too short in relation to the scope of contents; the course syllabus did not provide important details such as a reading list.

• However, the EE training an additional burden on HITAP. Given the current problem of delayed projects, it is unclear whether the social benefit generated from the training exceeds the cost incurred by HITAP. HITAP should weigh the cost and benefit of the training carefully and then make any necessary adjustments to the training.

there were strenuous attempts to make the process transparent and participative. Despite the transparency of much of the process it is less clear how conflicting claims were resolved.



Strategy III : Undertaking HTA to Address Policy Makers' Needs

As detailed in HITAP's completed and ongoing work programme a substantial body of work has been or is being undertaken. As of November 2008, 15 projects had been completed and no fewer than 24 projects were ongoing. The completed and ongoing projects cover a wide range:

- Diagnosis, such as, rapid testing for HIV, and role of PET-CT
- Surgical treatment, such as, laparoscopic surgery, stem cell transplantation and cochlear implantation
- Regulatory policy, such as, the compulsory licensing policy, and measures to control drug prices
- Pharmaceutical treatment, such as, cholinesterase inhibitors for Alzheimer's Disease, and the treatment of chronic hepatitis B and C
- Public health, such as, the prevention and control of cervical cancer, and the costs and consequences of alcohol consumption in Thailand
- HTA methods, such as, assessing a societal value for a ceiling threshold in Thailand, standard costing of health services, and the utility weights for the EQ5D

Although a number of projects are closely linked this remains an impressive portfolio in terms of its range and volume. The planned duration of projects cannot be determined from the documentation nor how much researcher time is committed to individual projects. Clearly such a wide range of activity is only sustained through excellent management, and high levels of commitment by the researchers involved.

Topic selection is clearly an excellent opportunity to build support amongst different agencies for HITAP activities - always supposing that any one organisation's suggested topics do not always fail to be prioritised. It is clear that there were strenuous attempts to make the process transparent and participative. Despite the transparency of much of the process it is less clear how conflicting claims were resolved. Also one might possibly question whether the inflexibility of the set procedure has disadvantages in terms of HITAP's responsiveness, for example, if an opportunity arises because an external funder comes to HITAP or because a policy issue emerges rapidly.

The breadth of the completed and ongoing list of projects, the wide range of dissemination activities, the training activities provided by HITAP and the broadly based participation in topic selection are all evidence of HITAP's success in working with other relevant organizations. This might be further documented by maintaining a more detailed list of projects formally noting collaborators and their organizational membership. This part of strategy III is the part which is least under the control of HITAP. HITAP can facilitate collaboration with relevant organizations but for collaboration to happen and to be successful requires a willingness and ability on the part of decision makers to utilise HTA information. HITAP address the issue of willingness and ability in part through the training that they offer. Another important means of securing collaboration is the effective dissemination of high quality and relevant research outputs.

HITAP has published 23 journal articles fairly evenly split between international and Thai journals. Three further articles are in press, and 12 more are undergoing review. These outputs are a reflection of where HITAP is in terms of its development and will also be influenced by publication lags. To date HITAP have published in a fairly narrow range of journals. Given the breadth and extent of HITAP activity it would be appropriate and advantageous to aim to publish in a wider range of journals. There can be a tension between peer-review publication and reports to inform Thai decision making if for no other reason than both activities compete for the scarce time of the researcher. The opportunity cost of devoting more energy to peer-reviewed publication is that overall HITAP will be less able to provide timely information on as wide a range of immediate Thai decision making concerns. Also peer-review publication will be influenced by the research methods used, encouraging innovation and complexity, whereas this is unlikely to be the case when trying to inform national health care decision making. Simpler methods may have a greater prospect of being understood and accepted.

However, it is important to have a commitment to peer-reviewed publication for several reasons.

- It is a potential source of critical input. Such criticism can play an important role in improving the quality of the research outputs.
- Repeated testing through peer-review is a means of maintaining and enhancing research standards. Standards of scholarship around the world continue to be raised and thus continued publication in international journals will force HITAP researchers to continually improve.

This high proportion (83%) of “marketable reports” of HITAP was remarkable as compared to the over 70% figure of marketable reports according to a meta-analysis of HTA evaluation paper from Europe.

• It is an important element in the development of individual researchers.

• It provides a means of building useful collaborations both within Thailand and internationally. The prospect of publication will be particularly important for researchers based in universities.

• It facilitates the sharing of information and researches.

Strategy IV : HTA Management and Processes for Undertaking HTA

• Our findings revealed varying degrees of outcomes rendered by the selected HITAP projects. At the lowest degree, in-depth interviews revealed that 1) Analysis of Cost -Utility on Cochlear Implantation for Profoundly Bilateral Hearing Loss Patients in Thailand and 2) Review of alcohol policies in Thailand and the roles of the Thai Health Promotion Foundation succeeded in raising awareness/acceptance of stakeholders. In addition, it was evident in review of HITAP website that HITAP database promoting access to relevant literatures for HTA in Thailand had been visited over one thousand times monthly during April to Sept 2008 with registered members of 152 individuals (Retrieved on 28th October 2008). This could imply that the database was found to be at least acceptable by that sizable number of visitors.

• At a higher degree, the project on Economic costs of alcohol consumption in Thailand was reported by decision makers to inform policy processes and policy decisions leading to issuing a comprehensive law for alcohol control in 2008. Similarly, the project on development of an optimal policy strategy for prevention and control of cervical cancer in Thailand succeeded in influencing policy process and policy decision leading to a pilot project by the Dept of Health to test a package of VIA and Pap smear for screening of cervical cancer. Through its strong connection to policy makers, HITAP could also assist policy reconciliation on cervical can screening between the Department of Health and the Department of Medical Services. Finally, stakeholders' interview revealed that "Assessing the potential of routine offer of HIV counseling and testing at community hospitals in Thailand" resulted in the adoption of the tested VDO prototype into clinical practice by a number of participating hospitals and some health centers in Bangkok.

• A well documented success of HITAP in influencing drug policy decision was the development of national economic evaluation guidelines endorsed by the Subcommittee for Development of the National List of Essential Drugs[14]. A drafted manuscript revealed 10 of 12 HTA completed reports during 2007-2008 were used in policy decision dealing with essential drug list, medical devices or public health interventions[15]. This high proportion (83%) of "marketable reports" of HITAP was remarkable as compared to the over 70% figure of marketable reports according to a meta-analysis of HTA evaluation paper from Europe[16].

• The aforementioned achievement at various degrees in enhancing HTA knowledge utilization did not come from implementation of an explicit action plan but rather from seemingly implicit rolling plan guided mainly by ongoing situation analysis relying on brainstorming sessions among HITAP staffs and its allies relevant to specific issues with inputs from ongoing mass media monitoring. In order to get the messages across to target audiences, HITAP employed multiple approaches comprising of push strategy, pull strategy and linkage/exchange strategy. The push strategy made use of print media, electronic media, and face-to-face interactions (press conference, presentations directly to policy decision makers and academic presentations). The pull strategy relied on training as detailed in Strategy II. The linkage/exchange strategy involved (a) knowledge brokering which was possible through exercising close connections with a few policy decision makers sitting in the Advisory Committee and (b) active participation of policy decision makers in 2 of the 4 phases of HTA management strategies[17] (topic selection and appraisal of results). Through active participation activities, HITAP had formed and expanded relationship with researcher community locally (Clinical Research Collaboration Network, Thai Society of Osteoporosis, Medical Schools etc.) and internationally (Global Development Network, National Institute for Health and Clinical Excellence, Health Insurance Review Agency etc.).

[14] Wibulpolprasert S. The Need for Guidelines and the Use of Economic Evidence in Decision-Making in Thailand: Lessons Learnt from the Development of the National List of Essential Drugs. J Med Assoc Thai. 2008;91 Suppl 2:S1-3.

[15] Tantivess S, Teerawattananon Y, Mills A. Strengthening cost-effectiveness analysis in Thailand through the establishment of the Health Intervention and Technology Assessment Program. Pharmacoeconomics. 2009; 27(11):931-45.

[16] Gerhardus A, Dintsios CM. The impact of HTA reports on decision-making processes in the health sector in Germany. [cited 2009 Jan 6]; Available from: http://gripsdb.dimdi.de/de/hta/hta_berichte/hta031_summary_en.pdf

[17] Wibulpolprasert S. The Need for Guidelines and the Use of Economic Evidence in Decision-Making in Thailand: Lessons Learnt from the Development of the National List of Essential Drugs. J Med Assoc Thai. 2008;91 Suppl 2:S1-3.

methodological strengths of HITAP did not fit well with the demands on knowledge for the development of health promotion policy. By contrast, other agencies responsible in health care financing and health technology management had not significantly made financial contribution to HITAP activities.

• Apart from enhancing utilization of HTA reports, Strategy IV also aimed to develop mechanisms and systems for HTA management. As of the end of 2008, HITAP completed topic selection process for the year 2008 and a study report on management approaches of agencies responsible for health technology and health policy evaluation in international community[18]. Meanwhile, HITAP reported further ongoing activities i.e., development of management mechanism for HTA, and a study on the impacts of communication strategies for the adoption of HPV vaccines.

• Viewing HITAP as a demonstration project on future development of HTA mechanisms in Thailand, it should be worthwhile to explore two more issues fundamental to the development i.e, financing mechanism and organizational management. According to the latest annual report (2008), HITAP had been financed through diverse sources of funds with the lion's share of 61% from Thai Health Promotion Fund (THPF). Given THPF mandate in health promotion rather than HTA, it is difficult to foresee a long term financial commitment to HITAP. In effect, a senior executive staff of THPF hinted that methodological strengths of HITAP did not fit well with the demands on knowledge for the development of health promotion policy. By contrast, other agencies responsible in health care financing and health technology management had not significantly made financial contribution to HITAP activities. Therefore, long term financial sustainability should be a concern for future development of HTA mechanisms such as HITAP.

[18] Health Intervention and Technology Assessment Program. Annual Report B.E. 2551. Bangkok: HITAP; 2008. Thai.

• The next deals with work climate within HITAP. According to the survey on HITAP staffs, it was found that with a flat organization design, HITAP staffs got organized in a collaborative environment leading to clear perceptions among majority of its staffs in shared common purpose, taking pride in their work, participation in decision making etc.

• Achieving such a collaborative work climate could be interpreted as one step in progress of setting up mechanisms and systems for management of HTA. However, HITAP's 2008 annual report admitted that implementation of this major component of the fourth Strategy had not been completed[19].

[19] Health Intervention and Technology Assessment Program. Annual Report B.E. 2551. Bangkok: HITAP; 2008. Thai.

4. Discussion

HITAP has been both effective and efficient in building HTA capacity and delivering HTA research to inform policy in Thailand.

Mission and vision

Drawing together the results from our evaluation of the four Strategies, it could reasonably be argued that so far HITAP had been following the direction specified in its vision. In only two years, HITAP had made a remarkable progress in terms of producing relatively high volume and high quality HTA knowledge relevant to the needs of Thailand (Strategy III). In comparison to an earlier HTA agency established under MOPH in 2002, productivity of HITAP was about 3.5 times higher in terms of the number of completed reports (12 in 2 years for HITAP and less than 12 in 7 years for that agency). As a result, it is fair to say that HITAP has met the objective of setting a new benchmark for HTA development in Thailand in regard to Strategy III. It also has an impressive record in translating knowledge into concrete policy decisions in areas such as prevention and control of cervical cancer and control of alcohol consumption (Strategy IV). These achievements would not have been possible without meaningful achievement in other components of the four interlinked strategies. That is, HITAP managed to develop mechanisms and systems through activities under Strategy I (the development of methods guidelines) and Strategy II (human capacity development). It also partially completed the development of mechanisms/ systems for management of HTA (probably the most obvious one was a collaborative work climate within HITAP), a key component according to Strategy IV. Nevertheless, there is room for further improvement with respect to each Strategy as discussed below.

Despite an impressive record of achievement under Strategy IV, HITAP seems to be at the beginning of the learning curve of establishing well proven and clear models for HTA management especially in dissemination and adoption of the knowledge. So far HITAP has relied heavily on a small number of knowledge brokers with formal linkage to policy decision makers. It is not clear which channels or combination of channels for knowledge dissemination under the push strategy work best and under what circumstances. Hence, more research is needed to address these concerns.

In response to these concerns, HITAP might take responsibility as it has done so far by full or partial engagement with the dissemination function as well as drawing the lessons learnt through systematic evaluation. In practice performing this function covers a wide range of activities requiring different expertise, financial resource and time depending on the complexity of issues and contexts. Another approach is to split the dissemination function with high demands on time, financial resource and special expertise from the knowledge generating function which is also similarly demanding. The latter approach carries a comparative advantage in terms of better maintaining impartiality and perpetuating expertise in knowledge production. An important thing to keep in mind in adopting this approach is to ensure relevancy of knowledge production to policy decisions. This could be achieved by maintaining linkage through formal and informal interactions.

Another important point of concern is the financial sustainability of the HTA mechanism as mentioned above. As a pioneer, HITAP might need to further demonstrate strategies for sustaining its financial support. Of course, diversifying sources of funds as HITAP has so far been doing could be an alternative. However, greater effort is required in order to convince the direct users of HTA knowledge (i.e., health care financing agencies, authorities for health technology management) to invest in HTA. Lessons from the establishment of the hospital accreditation body in Thailand could be a potentially good example in this regard.

Finally, the activity of building formal links with the agencies using HTA requires further strengthening in order to better facilitate upstream (topic selection) and downstream (conducting research and dissemination) processes of HTA as well as acquiring financial support.

KEY RECOMMENDATIONS

1.

HITAP's activities in (a) undertaking policy-relevant research and (b) building HTA capacity in Thailand should both continue to be supported financially on a more sustainable longer-term basis. However, this does not mean that HITAP should become dependent, in the longer-run, solely on government funding.

2.

HITAP and the Advisory Board should develop a funding strategy including the identification of alternative funding sources and business models suited to the Thai setting.

3.

Several decision making bodies in Thailand, including the Subcommittee of NLED and the National Health Security Subcommittee for the benefit package, are end users of HITAP's products. In order for HITAP research consistently to inform policy in the future, and for HITAP to be sustainable in the long-run, HITAP needs to build robust long-term relationships with Thai policy makers and recognize and respond to their individual information needs, whilst preserving their academic integrity.

4.

The Advisory Board should seriously consider the future direction of HITAP. Specifically, whether it should focus on generating knowledge through evidence synthesis including economic evaluation or on translating this knowledge into policy decisions, or both.

5.

HITAP needs to produce a process guideline describing aspects of their work including topic selection, engagement with stakeholders, and challenge and contestability mechanisms. This will make their activities more transparent, increase interaction with, buy-in and ownership by stakeholders and make their recommendations more defensible in cases where there is disagreement.

6.

HITAP and its Advisory Board should consider restricting the range of topics considered or developing long-term strategies for sustaining their currently broad ranging research activities through, for example, using Thai and international academic research networks or the appointment of additional experienced researchers. This is closely linked to the development of a long-term funding strategy (point 2).

7.

Peer review publication is important in terms of maintaining and enhancing research quality and retaining academically-oriented staff, but it can be at the cost of providing timely information relevant to Thai decision makers. HITAP and its Advisory Board should develop a clear publication strategy taking into account the resource constraints and long-term objectives of the organization.

8.

There is evidence that timeliness in delivering HITAP projects is becoming a concern. HITAP should develop a more strategic staff recruitment and retention scheme, including recruiting or involving more experienced researchers that could have an immediate impact in terms of HITAP's productivity.

9.

The current model of professional development at HITAP is based predominantly on on-the-job training and close mentorship between HITAP employees. However, as the organization expands and workload increases such a model may not be sustainable. HITAP and its Advisory Board should develop a strategy for continuous professional development relying on formal rather than personal relationships.

10.

Strong leadership is important in establishing and maintaining links with policy makers and funders and inspiring HITAP staff. The Advisory Board should develop a strategic plan both for supporting the current leadership and for longer-term succession planning purposes. Future development of HITAP's activities requires that the Advisory Board reviews the academic/technical, mentorship, administrative and advocacy responsibilities of the leadership.

2

HITAP's responses to key recommendations

> in HITAP's second phase, the program is planning to set the target of performing good quality and applicable research in order to be increasingly recognized by all important actors including policy makers, healthcare practitioners, and the general public. This is to make HITAP an indispensable unit in the Thai health care system.

HITAP takes into account the results of the organizational assessment conducted by external evaluators. All of the comments and recommendations were brought to discussion on many occasions such as at the meeting of the HITAP Advisory Committee in 2009, meetings of HITAP staff, and the development of the HITAP phase II proposal. In addition, experts in related fields were consulted on particular comments. These actions aimed to identify appropriate problem-solving strategies, as well as the optimal approaches for strengthening the capacity of HITAP and also the country's health technology assessment network as a whole.

To enhance the benefits to the audiences, this chapter presents HITAP's responses to the evaluators' key recommendations.

1 HITAP should secure more sustainable and longer-term financial support for its activities in (a) undertaking policy-relevant research and (b) building up HTA capacity for Thailand. However, this does not mean that HITAP should rely solely on government funding.

2 HITAP and the Advisory Board should develop a funding strategy which includes the identification of alternative funding sources and business models suited to the Thai setting.

HITAP's work is primarily for use by national policy decision makers with the aim of establishing a culture of using sound evidence when making healthcare resource allocation decisions. HITAP has received major support from the Thai Health Promotion Foundation (Thai Health) for initiating the project's first phase (2007-2009). At present, HITAP is seeking additional funding from Thai Health for its second phase (2010-2014). It is very likely that Thai Health will continue its support for HITAP. HITAP does, however, seek to keep its options open in regards to receiving research funding from other non-profit organizations if research projects coming from those organizations are directly related to HITAP's area of expertise.

HITAP is very concerned with the necessity to have sustainable financing for completing its missions and strategies which are crucial for the seamless development of the country's capability in health technology assessment. However, there is still uncertainty over the long-term financing of HITAP, particularly after the end of the second phase. Therefore, in HITAP's second phase, the program is planning to set the target of performing good quality and applicable research in order to be increasingly recognized by all important actors including policy makers, healthcare practitioners, and the general public. This is to make HITAP an indispensable unit in the Thai health care system. At the same time, to assure funding security, many activities in the second phase are aimed at supporting the transformation of HITAP from a program under the Bureau of Health Policy and Strategy, Ministry of Public Health, to a state autonomous organization. In this way, aside from receiving successive yearly budget support, HITAP will have a high degree of flexibility and freedom in carrying out its research and activities.

3

Several decision making bodies in Thailand, including the Subcommittee of the NLED and the National Health Security Subcommittee for the benefit package, are end users of HITAP's products. In order for HITAP research to consistently inform policy in the future, and for HITAP to be sustainable in the long-run, HITAP needs to build robust long-term relationships with Thai policy makers and recognize and respond to their individual information needs, whilst preserving its academic integrity.

Findings from HITAP's research projects have been used in development of the National List of Essential Drugs and the benefit package under the Universal Health Insurance Scheme through personal relationships between HITAP staff and the key members in both Subcommittees. Nevertheless, HITAP is aware that personal relationships without formal rules and mechanisms will introduce uncertainty in the implementation of HITAP's researches into practice.

Hence, many activities in HITAP'S second phase will focus on developing systems and mechanisms to support the continual implementation of HITAP's research works among these target groups as well as other potential users e.g. middle-level level decision makers and health professionals. HITAP initially aids the group of middle-level policy makers e.g. hospital directors, and helps them to gain knowledge and understanding concerning the assessment of health technology and policy, and to be confident in utilizing this information in the policy decision-making process. As a result, HITAP works hard to establish curriculums and training courses related to health technology assessment for all levels of health care administrators, health professionals, and academics. These curriculums are the way to build up good relationships between these stakeholders and HITAP staff. HITAP's fourth strategy in the second phase contains activities to increase the use of HITAP's research results in policy and practice through the presentation of HITAP's studies in various formal and informal meetings among middle-level policy makers as well as domestic conferences for health professionals. These activities will also help highlight the HITAP brand and the importance of health technology assessment.

> HITAP gives first priority to building up knowledge based primarily on evidence synthesis from other research, and then dissemination of the research to policy makers, practitioners, and the general public.

4

The Advisory Board should seriously consider the future direction of HITAP. Specifically, it should focus on generating knowledge through evidence synthesis, including economic evaluation, and on translating this knowledge into policy decisions.

HITAP is a health technology assessment agency in Thailand where there are a number of limitations and barriers to conducting this kind of research. Consequently, HITAP gives first priority to building up knowledge based primarily on evidence synthesis from other research, and then dissemination of the research to policy makers, practitioners, and the general public.

Translating research knowledge into policy decisions via social movement or active policy formulation has been relegated to the second priority of HITAP. This is because there may be other stakeholders performing this role better than HITAP. In addition, HITAP has already established a transparent and participatory process by allowing policy makers and other relevant stakeholders to be involved in the selection of research topics, fine tuning research questions, assessing health technology, and the reviewing of research results and policy recommendations. These processes will also encourage the use of HITAP's works in policy decisions.

5 HITAP needs to establish process guidelines for technology assessment of the current works including topic selection, participation of stakeholders, and argument and appeal mechanisms. This will make its activities more transparent and increase the interaction and participation of stakeholders, so that they can support and defend HITAP's recommendations where there is disagreement.

The process guidelines for technology assessment are required in the third strategy of HITAP's second phase. This will ensure transparency at HITAP and allow interested parties to actively interact and participate with HITAP staff.

6 HITAP and its Advisory Board should consider restricting the range of research topics or developing long-term strategies for sustaining the current broad range of research activities by using both Thai and international academic research networks or the appointment of additional experienced researchers. This recommendation is closely linked to the development of a long-term funding strategy (the second recommendation).

In fact, similar standards of methodology are often applied in the research of technology and health policy assessment. The frequent noticeable variations in HITAP's research projects are the types and the categories of the evaluated technology and policy, as well as research questions. HITAP always invites outstanding experts in every field to participate in its research in order to obtain reliable and useful comments and suggestions and, many times, they are involved as co-investigators. By doing this, HITAP's researchers can ease the burden of gathering information and understanding regarding the specific issues. Learning from the experts will also shorten the learning curve of HITAP staff.

HITAP also recognizes that health technology and policy assessment must be multidisciplinary and cover a wide range of issues concerning the use of pharmaceuticals, medical devices, clinical practices, individual and community health promotions and disease prevention, as well as social health policy. The diversified research topics will stimulate the team spirit among the researchers, and the exchange of knowledge between each other and with third parties.

> HITAP places more importance on providing data and evidence to the policy decision makers rather than publishing in academic publications.

7

Peer review publication is important in terms of maintaining and enhancing the research quality and retaining academically-oriented staff, but it can be at the cost of providing timely information related to Thai decision makers. HITAP and its Advisory Board should develop a clear publication strategy by taking the resource constraints and long-term objectives of the organization into account.

Since HITAP's research projects are carried out with the aim of using them in policy decisions, HITAP places more importance on providing data and evidence to the policy decision makers rather than publishing in academic publications. As for publications in academic journals, it is considered that researchers and the organization can reap some benefits of academic recognition, and some research can be utilized by foreigners. Publication of research results is also considered as the final step of the research, and implies the good quality of the research.

8

There is the obvious problem of delivering research results on time. To solve this problem, HITAP should develop a strategy of staff recruitment and retention, including recruiting or working with experienced researchers from other institutes, so that HITAP's productivity will immediately increase.

HITAP recognizes the problem of an imbalance between current research capacity and demand for assessment from stakeholders. In the short term, HITAP agrees that there is an urgent need to recruit experienced researchers to work for HITAP, on both a full time and part time basis. HITAP believes, however, that it will be difficult to identify skilled and available researchers. HITAP is considering an option to 'subcontract' its own research to well-established researchers and research institutes in particular areas where those researchers and research institutes have more expertise than HITAP. In the long run, HITAP still pursues the notion of grooming and recruiting the younger generation as part of our main strategy - strategy 2: capacity building.

9

The current pattern of the researchers' capability development at HITAP is based predominantly on on-the-job training and the HITAP senior mentor acting as supervisors and advisors. However, when the organization expands and the workload increases, this method may no longer work. HITAP and its Advisory Board should develop a strategy for successively developing researchers based on the formal route rather than personal relationships.

On-the-job training under the supervision of senior mentors provided to young/new researchers is currently the main strategy for building up research capacity within HITAP. Although the approach increases the burden on senior mentors, who are rarely available in the office at HITAP, the evaluation report illustrated that this approach is very successful. At present, after three years of continual training the initial young researchers have received training from senior mentors with more working experience, and can now in turn provide similar supervision to the next generation of young researchers. As a result, HITAP's perspective regarding on-the-job training is that it is still an appropriate way to groom the new generation of researchers. This is felt to be true even though the organization has expanded and the workload has increased. It is noteworthy that HITAP also supports its staff and sends them to attend training courses outside the organization and to study at the higher education level in universities both in Thailand and abroad.

> The organization should not rely on an individual but on a well established system and operational procedure. This is also part of building up organizational capacity in the long run.

10

Strong leadership is important in establishing and maintaining the connection with policy makers and funding sources and inspiring HITAP staff. The Advisory Board should develop a strategic plan for supporting the current leadership as well as for long-term succession purposes. As for the future development of HITAP's activities, the Advisory Board needs to review the leader's responsibilities in academic, mentorship, administration and determination in pushing forward a policy.

Given the significant success of HITAP's first phase, the Advisory Board has recommended that the current leader serves in the position for a long term, e.g. a 10-year period, to keep the momentum and direction of the organization. However, HITAP internal management must be transparent and participatory by all levels of staff and open for challenges from stakeholders. The organization should not rely on an individual but on a well established system and operational procedure. This is also part of building up organizational capacity in the long run. Moreover, the Advisory Board is willing to provide full support to the leader and the team upon requests.

3

Comments on ‘Evaluating HITAP: 2 years on’

Mark Sculpher, PhD

Karl Claxton, PhD
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As mentioned earlier, HITAP pays serious attention to the program's evaluation by external evaluators. To enhance the benefits, in the academic and managerial aspects of this report, we invited comments from 2 health economists concerning the methodology and key findings of the evaluation, as well as related recommendations. These experts include Professors Mark Sculpher and Karl Claxton, Centre for Health Economics, University of York, United Kingdom. The commentators not only have a vast amount of experience in health technology assessment (HTA), but also have conducted research in this area for the National Institute for Health and Clinical Excellence (NICE). This suggests that they are truly knowledgeable concerning national HTA organizations.

1. BACKGROUND

1.1 This paper provides some comments on the document prepared by Jirawat Panpiemras and colleagues entitled 'Evaluating HITAP: 2 years on'. We base the comments largely on the latter document, but we have also reviewed a selection of HTA reports which were sent to us by HITAP.

1.2 As a general comment we believe the evaluation was thorough, balanced, insightful and entirely helpful for HITAP's future development. It is also appropriate that the review focussed on HITAP's four core strategies. Our comments, therefore, largely represent additional ideas which we feel may be useful, differences of emphasis compared to the evaluation's authors and suggestions for further detail in the report.

1.3 At the outset we would also like to state how impressed we are with HITAP's activities over the last two years. In particular its outstanding productivity in delivering a number of high quality HTA reports.

2. THE EVALUATOR'S METHODS

2.1 We have few qualms about the way Dr Panpiemras and colleagues went about their tasks. However, the report could perhaps have added some more details on the following:

2.1.1 A list of individuals with whom they communicated in their evaluation. If confidentiality is an issue, the number of individuals and their respective positions would have been sufficient.

2.1.2 It was not clear whether the opinions of policy makers and other stakeholders were sought by the evaluation team. This would seem to be a relevant set on views to include in the review.

2.1.3 Given the stated importance of HITAP's capacity constraint in terms of skilled staff, we would have expected more details regarding HITAP's staffing (numbers, disciplines, experience etc.).

3. THE CHALLENGE OF CAPACITY CONSTRAINTS

> focusing the attention of researchers on the science, rather than developing the policy recommendations, could ameliorate the capacity constraint and improve timeliness, while providing more transparency in the development of recommendations.

3.1 A major theme of the report is HITAP's challenge in meeting all its objectives given capacity constraints. In particular the need to deliver a large programme of HTA with a relatively small number of mentors in the organisation. As currently seen, these HTA activities include both the science and the process of working with policy makers and other stakeholders to define the implications for policy and to make recommendations. The evaluators are urging HITAP to define a more formal process for the latter activity with more transparency and consultation. We feel that this additional process will be costly; in particular, it will require more time of senior HITAP staff which cannot then be used to supervise the scientific activities. It may also add to the problems of delay, particularly if the conduct and publication of the HTA report itself is subject to a potentially prolonged consultative process.

3.2 Whilst a more formal process would have some advantages, we believe an additional option could be considered: to mirror NICE's distinction between 'assessment' and 'appraisal'. The former relates to the science of identifying, synthesising and modelling the evidence. For HITAP, the latter could be seen as the activity of developing policy-friendly recommendations out of the HTAs in a timely fashion. It is this appraisal activity where more transparency in the process of consultation and deliberation is most crucial. By clearly distinguishing these activities it would be possible to define the appropriate staff for each. 'Assessment' activities would largely be the focus of HITAP researchers and mentors. Once the HTA report was completed 'appraisal' could then be undertaken following a more transparent process which could be organised by administrators working closely with external stakeholders. Hence focusing the attention of researchers on the science, rather than developing the policy recommendations, could ameliorate the capacity constraint and improve timeliness, while providing more transparency in the development of recommendations.

> The key issue is that HTA organisations need to balance skills in key areas including clinical epidemiology, systematic review, economics, biostatistics and modelling. To what extent has this been achieved at HITAP? Are there skill shortage areas? If so, what are the options for addressing these?

3.3 One of the potential advantages of the separation of assessment and appraisal relates to work with external scientists. There is little mention of either contracting out HTA activities to, for example, academics, or collaborative work between HITAP and externals. In principle, however, such activities could provide more capacity to deliver (and expand) the HTA programme. For most externals (especially those based outside Thailand), it would be easier to contribute to the science of assessment than to the process of appraisal which necessarily needs information on Thai policy and a close association with Thai stakeholders. It is important that, where possible, HITAP work efficiently in seeking to avoid duplicating work previously undertaken elsewhere. For example, through collaboration there is likely to be scope to adapt cost-effectiveness models, relating to important policy questions, developed in Europe and North America to the Thai setting.

3.4 There was little consideration in the evaluators' report about the balance of disciplines and skills within HITAP. There is a suggestion that the range of backgrounds of HITAP researchers may be a problem for the organisation, but such diversity may actually be a strength given the multi-disciplinary nature of HTA. The key issue is that HTA organisations need to balance skills in key areas including clinical epidemiology, systematic review, economics, biostatistics and modelling. To what extent has this been achieved at HITAP? Are there skill shortage areas? If so, what are the options for addressing these?

3.5 There is some discussion of training in the evaluators' report, but this seems to focus entirely on economic evaluation (page 21). What other training needs are there and how have these been satisfied?

3.6 It could be argued that the aim of getting a balance between less experienced but talented and enthusiastic researchers and more experienced mentor-level individuals is the aim of most organisations undertaking research in general and HTA specifically. The challenge is to ensure that less experienced researchers are given the opportunities as early as possible to take on the responsibilities of supervision and leadership. The process by which junior researchers can be progressively developed into mentors through their experience at HITAP is not discussed in detail. The evaluators might have given more consideration to options to facilitate this transition. It seems that much of HITAP's focus of training and career development has been formal education overseas. This undoubtedly has its place but other activities might include short-term secondments into HITAP by experienced researchers, or short-term placements of HITAP researchers into HTA organisations outside Thailand.

4. PUBLICATIONS AND DISSEMINATION

> the separation of assessment and appraisal will provide more space for peer-reviewed publishing which largely relates to assessment.

4.1 The evaluators refer to the opportunity costs associated with HITAP publishing their science in peer-reviewed journals. We feel there is a danger that the importance of peer-reviewed publishing has been understated. This activity is crucial to an organisation such as HITAP to ensure the recruitment, development and retention of the best researchers in the field; to provide quality control of its HTA; and to enhance its national and international reputation. Again, we feel that the separation of assessment and appraisal (the seventh recommendation) will provide more space for peer-reviewed publishing which largely relates to assessment.

4.2 The time demands of peer-reviewed publication could also be limited by its more selective use. Importantly, transparent appraisal should not be delayed by the process of peer -review publication. If HTA reports are made available (as suggested in 4.3), then not all assessment activities need to be published in journal form. It may be helpful to prioritise – for example, a focus of those projects using interesting methods or with more international relevance.

4.3 It is not clear to us whether all HITAP HTA projects are always published in full and made available on the organisation's website. This would seem to be an important and, in principle, straightforward form of dissemination. HITAP could consider the routine publication of HTA reports as part of its assessment and appraisal processes. Ideally this would involve publishing them in one location as identifiable series of research reports, with consistent format and some process of quality control. Routinely translating these reports into English would also contribute to HITAP's developing international reputation.

5. METHODS GUIDELINES

> given the plurality of organisations potentially using HITAP research to inform decisions, there may be a need for flexibility in the recommended methods.

5.1 We have not reviewed the Thai HTA methods guidelines, but have some reflections on the evaluators' comments. The first is the fact that a statement of appropriate methods cannot be made without reference to the decisions that the HTA is informing. Unlike NICE, for example, HITAP does not generate HTA to support a single decision maker. Rather, we understand these activities to be potentially relevant to a number of policy making institutions within Thailand. A careful description of these institutions, their remit and how HTA can inform their decisions would be important as a way of framing the method documents. Furthermore, given the plurality of organisations potentially using HITAP research to inform decisions, there may be a need for flexibility in the recommended methods. For

example, there may be value in defining several Reference Cases, one for each decision making organization that HITAP's research informs.

5.2 A specific comment is made by the evaluators about HITAP's recommendation of probabilistic sensitivity analysis and cost-effectiveness acceptability curves, in fact, this is demands for skills and may not be easily interpreted by decision makers. We feel it is important for the method guidelines to state clearly why assessing uncertainty is important in supporting decision making, and what the key assessments should be: what will the costs of a wrong decision be (in terms of health/welfare)? Are there sunk costs involved in the uptake of a technology which won't be recovered if a decision subsequently needs to be reversed? Is the possibility of further research likely to be influenced by a positive decision about a new technology? Can the decision making organisation make recommendations or commission its own research to address existing uncertainties and, if so, is the value of that research justified given the costs? In explaining the importance of these assessments, the appropriate methods and most suitable means to present results to particular decision makers become clearer.

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