Special Article

Making Sensible Rationing: The Use of Economic Evidence and the Need for Methodological Standards

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Thailand was increasingly facing budget constraints when a comprehensive package of services was provided literally free to the whole population; therefore rationing is inevitable. 'Good value for money' is among the popular criteria in priority setting as it offers a sensible basis to compare marginal benefits with the resources spent across interventions. The majority of cost-outcome studies in Thailand were subject to bias as they relied on low-quality evidence. The methods applied also varied greatly. This hampers comparisons across studies. The first ever national guideline was developed by experts from different institutes to propose the most practical ways of conducting health technology assessment on the basis of economic principles in the Thai context. This paper also draws lessons from a transparent process involving key stakeholders in selecting technologies to be assessed given time and resources constraints. Finally, it is hoped that these tools and methods will be applicable for Thailand to facilitate comparisons of different studies in order to better inform policy decisions in a transparent manner.

Keywords: *Rationing, Economic evaluation, Guidelines, Health technology assessment*

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Although the research and development of new health technology† has produced great benefits to society, access to these innovations is often hampered by intellectual property protection, lack of health personnel, inadequate and non-functioning healthcare delivery systems, and unaffordable costs, especially among the poor in developing countries where a large portion of health expenditure is paid out of pocket by the households. Fiscal constraints are common problems facing governments and Ministries of Health in the developing world.

As a result, not only are governments and agencies responsible for adopting new health technologies, health insurers must also be held socially accountable in ensuring access to essential health services for needy populations and their insurance members by defining health benefit packages[1-3] and taking into account the fiscal capacities of governments and insurance agencies. In view of resource constraints in poor settings, health benefits should be prioritized by the magnitude and a profile of the burden of disease on the population as well as guided by evidence regarding cost-effectiveness. However, the ultimate goal of health insurers should not be comprised only of cost containment, but also the maintenance and improvement of the health status of the population covered by their insurance schemes[4]. Therefore, governments and health insurance managers have become increasingly interested in the application of economic evaluation, as one of several tools, to consider the costs and benefits associated with a given health technology, either current or new ones[5-7].

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† Health technologies here covers the whole range of goods and services including for example, medicines, vaccines, diagnostic, medical devices, therapeutic and other public health interventions aiming to improve health of the population.

Several European countries apply an economic evaluation method when defining health services for public health insurance coverage; however, this practice has only been formally adopted in the UK, the Netherlands and Sweden. The application and methodology also differ from one country to another[8]. A review of the use of economic evaluation of pharmaceuticals in 13 European countries demonstrates that this evidence is mandatory as part of the applications for inclusion into public reimbursement schemes. This is particularly required in the case of innovative products or in situations where the manufacturer is seeking a premium price[9]. Apart from this requirement, these countries employ a range of mechanisms for encouraging the use of pharmaco-economic assessment including reference-based pricing, local formulary discussion, communications with prescribers, and the development of clinical practice guidelines development.

In the Asia and Pacific region, South Korea recently introduced economic evaluation in priority setting of healthcare services. Japan, Hong Kong and Singapore are progressing rapidly towards a government requirement of cost-effectiveness evidence as part of the approval process for new pharmaceuticals[10]. Apparently, there is a capacity to generate and apply economic evaluation in these countries to accommodate policy concerns regarding cost-escalation in the health sector.

Thailand, a lower, middle income country, has been increasingly facing budget constraints when a comprehensive package of services was provided literally free to the whole population through 3 major public insurance schemes: one for public sector employees, one for private sector employees and one for the residual population. In view of technological advancements and finite resources, policy makers, hospital administrators, and professionals realized the fact that it is impossible to cover all interventions in the benefit package; rationing is inevitable and is better applied sooner rather than later[4]. To gain public confidence and trust, the use of a well-structured and rational approaches are required. 'Good value for money' is among the popular criterion in priority setting as it offers a sensible basis to compare marginal benefits with the resources spent across interventions.

A review of economic evaluation literature relating to Thailand reveals inadequate resources and capacity in conducting domestic assessments[11]. It was found that the majority of cost-outcome studies were subject to bias as they relied on low-quality evidence. The methods applied also varied greatly. This hampers comparisons across studies. One cannot make a good judgment on whether the differences in incremental cost-effectiveness ratio reflect the real differences in costs and/or differences in outcomes or differences in the study methods applied. This calls for standardization of methodology when conducting economic evaluation.

Though high quality economic evaluations alone may not convince the public when recommending or not recommending a particular intervention, given that societal values, political and ethical dimensions which interplay in the decision processes, one still requires rigorous tools and methodology for economic evaluation; otherwise, it is difficult to defend yourself when being challenged.

Highlights in this special issue

This special issue emphasizes economic evaluation and its application in the health sector. With regard to the former, 11 articles aim to provide all concerned parties with methods and critical issues, which can be taken as guidance when there is a need to assess the costs and outcomes of particular health interventions. As chapters in the first-ever national guideline, these review papers were developed by experts from different institutes to propose the most practical ways of conducting health technology assessments on the basis of economic principles in the Thai context. These concerted efforts respond to the call for standardized tools and methodologies in conducting health-economic evaluation in a country where necessary information is usually limited.

To illustrate the health technology assessment experience in Thailand, this paper draws lessons from a transparent process involving key stakeholders in selecting technologies to be assessed given time and resources constraints. Such participatory approaches can ensure ownership and downstream policy decisions by users and trust-building between users and Technology Assessment Agencies.

Other papers give the audience a flavor of how cost assessment and economic evaluation have been applied in the country. These include, for example, studies of the economic cost of injuries due to interpersonal and self-directed violence, cost-effectiveness of initiating anti-retroviral treatment using Efavirenz- and Nevirapine-based regimens, and cost-utility of the use of recombinant human erythropoietin in chemotherapy induced anemic patients. Above all, it is vital that these assessments were not merely academic

exercises, but fed into policy-decision processes. This requires a national platform to establish the importance of health technology assessment, including economic evaluation.

Finally, it is hoped that these tools and methods will be applicable to for Thailand and also adapted by other developing countries to facilitate comparisons of different studies in order to inform better policy decisions in a transparent manner. It is noted that not only producing and applying these tools, but also strengthening and sustaining institutional capacities, to generate the evidence and effective interfaces between evidence and decisions, are equally important.

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หลักการประเมินทางเศรษฐศาสตร์การจัดสรรปันส่วนอย่างสมเหตุสมผล โดยใช้ข้อมูลทางเศรษฐศาสตร์และความต้องการมาตรฐานในระเบียบวิธีการศึกษา

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ประเทศไทยซึ่งกำลังเผชิญกับปัญหาด้านงบประมาณที่มีอยู่อย่างจำกัด ภายใต้ชุดสิทธิประโยชน์ที่รัฐกำหนดให้ประชาชนสามารถเข้าถึงโดยไม่เสียค่าใช้จ่าย ดังนั้นการจัดสรรปันส่วน หรือการกำหนดลำดับความสำคัญ จึงเป็นสิ่งที่ไม่สามารถหลีกเลี่ยงได้ เกณฑ์การพิจารณา "ความคุ้มค่า" เป็นหลักเกณฑ์ที่ได้รับความนิยมเป็นลำดับแรก ๆ ในการนำมาใช้เพื่อจัดลำดับความสำคัญ เนื่องจากเป็นหลักการพื้นฐานที่เปรียบเทียบผลลัพธ์ที่เพิ่มขึ้นกับทรัพยากรที่ใช้ไปในมาตรการนั้น การศึกษาด้านต้นทุนและผลลัพธ์ในประเทศไทยส่วนใหญ่ ยังมีอคติข้อมูลที่นำมาใช้ยังด้อยคุณภาพ วิธีการศึกษามีความหลากหลาย ซึ่งเป็นอุปสรรคต่อการเปรียบเทียบการศึกษาเหล่านั้น คู่มือเล่มนี้เป็นแนวทางการประเมินเทคโนโลยีด้านสุขภาพสำหรับประเทศไทยเล่มแรก ซึ่งได้รับการพัฒนาขึ้นโดยผู้เชี่ยวชาญจากหลายสถาบัน โดยเสนอแนะแนวทางที่เป็นไปได้ในทางปฏิบัติสำหรับการประเมินเทคโนโลยีด้านสุขภาพหลักการพื้นฐานทางเศรษฐกิจภายใต้บริบทของประเทศไทย คู่มือเล่มนี้ยังพัฒนาขึ้นด้วยกระบวนการที่โปร่งใส ผ่านการมีส่วนร่วมของผู้มีส่วนได้ส่วนเสียสำคัญ ในการจัดลำดับความสำคัญของเทคโนโลยี ท้ายที่สุดหวังว่าคู่มือเล่มนี้ จะถูกนำไปประยุกต์ใช้ในการศึกษาในอนาคตสำหรับประเทศไทย