

HTAi

Background Paper

How can HTA meet the needs of health system and government decision makers?

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Introduction

Health care decision makers around the world are faced with many choices. Decisions must be made around health system structure, the scope of the health system, system priorities, and the technologies and health packages to be offered. The complexity of this decision making is exacerbated by limited health care resources and an ever increasing number of health care interventions which could be offered. Health technology assessment (HTA) is therefore used in many health systems as a tool to support systematic and transparent decision making, whilst allowing for the specifics of the national/local context. HTA involves two key components: 1) the *assessment* of the evidence, which involves gathering and analysing data on the facts of the technology and the local context (addressed in section 3 of this note), and 2) the *decision making* (or *appraisal* of that evidence), which involves weighing up the evidence gathered to take a decision (sections 2 and 4).

This briefing paper for the Asia HTA Policy Forum (AHPF) will set out the issues to be addressed in considering where and when HTA could be a useful aid for decision making, what HTA can be used to achieve, and where the evidence for HTA can be obtained from (including a brief recap of the transferability discussions in the 2014 meeting of the AHPF). The final section considers how decision makers can combine all the relevant criteria and information to arrive at a decision; we discuss the spectrum of approaches from deliberative to more structured decision making processes including the use of Multi-Criteria Decision Analysis (MCDA).

1. What decisions get made and where?

HTA is usually thought of as applying to individual drugs or health care interventions (for example surgical procedures or devices), and sometimes clinical pathways or guidelines. Yet, the potential uses of HTA are much broader than this. Definitions of Health Technologies usually include "the systems within which health is protected and maintained" (INAHTA, 2015), so HTA could also be used to aid decision making relating to "macro" organisational issues, such as the architecture of service delivery, choice of reimbursement mechanisms, and the work-force mix as well as "micro" level issues relating to individual technologies and their combination in clinical guidelines and pathways (Towse et al., 2011).

HTA can also be used at different levels of organisation; centrally, by governments and/or national HTA agencies, or locally, by regional or hospital level budget holders or local HTA agencies.

We therefore consider that HTA could be used to aid decision making in:

1. Decisions in government on system priorities on what the publicly funded health system should provide in terms of universal care/basic package/scope of the system and the architecture of the delivery of health care.
2. Decisions in government and/or the health care system on:
 - a. System priorities (e.g. tackling communicable diseases, diabetes, etc.) and on the choice of specific programs of care or packages of interventions (including evidence-based treatment guidelines);
 - b. The prioritisation and use of other (single) non-pharmaceutical interventions/technologies e.g. devices, surgery, public health etc.
 - c. The prioritization and use of pharmaceuticals within existing budgets, i.e. decisions on reimbursement and/or pricing, including restrictions to particular patient groups or settings.
3. Decisions at the local level of budget holders (e.g. the region or hospital level) to help them decide which treatments to make available to their patients.

The remaining sections of this document are intended to cover all types of HTA. Yet, much of the existing literature, and therefore much of our discussion, is concentrated around HTA of individual technologies or groups of technologies either at the national or local level (types 2 and 3). Considerations or evidential criteria that vary for the different levels of HTA decision making are highlighted in each section.

2. What are the objectives and criteria for decision making?

The objectives of the decision maker dictate which factors and decision making criteria should be taken into account within the HTA process. Clarity is important in the relationship between those that conduct HTAs (and so assess evidence) and those that are empowered to make difficult trade-offs and take difficult decisions, based on that assessment. Decision maker objectives could include (but are not limited to):

1. improving the health of the population
2. increasing economic prosperity
3. meeting other social and political priorities.
4. achieving value for money

Typically decision makers pursue a combination of these objectives.

To see the importance of underlying objectives in determining the factors/decision making criteria to include, consider the following example: if the primary objective is to obtain value for money for the health care system, then HTA would most likely include an assessment of benefits and costs (for example using an assessment of therapeutic added value or using cost-effectiveness analysis¹). This would enable the decision maker to determine whether an intervention is likely to offer sufficient "health gain per dollar". The objective of efficiency in one sense is therefore met, but the process does not necessarily support (and may even hinder) efficiency in achieving other objectives, such as improving equity. If the decision maker was also concerned with equity, they would need to consider additional factors, such as whether the intervention would be accessible and relevant to vulnerable populations. This additional objective therefore requires additional evidence and may change the scope of the HTA.

Some examples of decision maker objectives and the resulting factors or criteria to consider are shown in Table 1.

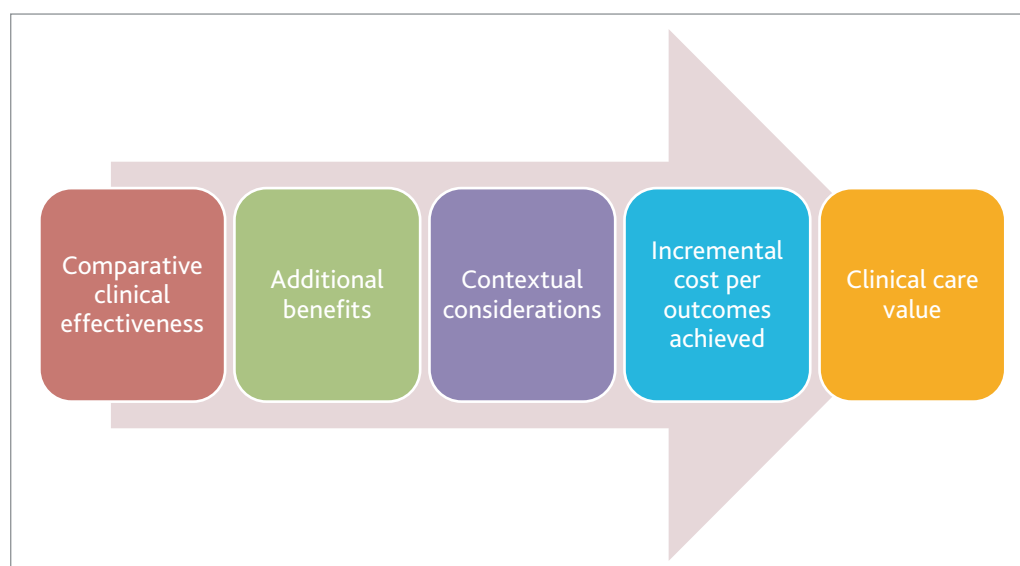
¹ See Towse & Barnsley (2013) for a discussion of different approaches to assessing value.

Table 1: Objectives of the decision maker and related criteria

Objective	Factors to consider
1. Improving the health of the population	<ul style="list-style-type: none"> reducing burden of illness <ul style="list-style-type: none"> the severity of the disease for the individual patient the burden of the disease on the society health gain in terms of gain over a relevant comparator impact on carers and families
2. Improving economic prosperity	<ul style="list-style-type: none"> impact on carers and families impact on the economy <ul style="list-style-type: none"> the size of the economy (GDP) and rate of growth
3. Meeting social and political priorities	<ul style="list-style-type: none"> equity issues ethical issues relevance to national priorities and values attributes of the patients who would benefit (e.g. they are children or another priority group?)
4. Getting value for money	<ul style="list-style-type: none"> allocative efficiency – maximizing benefit subject to budget constraints <ul style="list-style-type: none"> cost-effectiveness budget impact, given likely numbers of patients treated

The table highlights multiple objectives and criteria which could be taken into account in HTA; whilst clinical benefits and health system costs are nearly always considered, HTA is not limited to these factors, and other criteria are often equally important. The value framework suggested for use in the US by the ICER Group (Pearson, 2015), supports this by suggesting that “clinical care value” should be a judgement based on four elements (see Figure 1). This framework was developed with the specific purpose to identify relevant domains of value, and suggestions are provided on how to measure each domain for integration into an overall assessment of value². Note that whilst the *application* of this framework has been controversial, the *conceptual framework* itself is useful for highlighting the range of relevant criteria for decision making.

Figure 1: Elements in a payer assessment of value: clinical care value



Source: Pearson, 2015

Norheim et al. (2014) state that, generally, the objectives of priority setting should be to achieve an appropriate mix of maximisation of health, reduction in inequities in health, and financial protection against the costs of ill health. These objectives are covered in Table 1: maximisation of health relates to improving the health of the population (1) and getting value for money (2), reducing inequity and increasing financial protection relate to meeting social and political priorities (4).

² <http://www.icer-review.org/impact-and-outcomes/value-assessment-project/>

The specific objectives of decision makers around the world are difficult to identify from the literature; information on the criteria taken into account in HTA is much easier to identify. For example, NICE in the UK is typically concerned with objectives 1, 3 and 4, where the social and political priorities include factors such as equity and equality, as well as a preference for treatments which are life-extending for patients with short life expectancy. This said, nowhere are these spelt out explicitly as the objectives of NICE's priority setting. Rather they are inferred from NICE's report on Social Value Judgements (NICE, 2008).

Note that the objectives and criteria to be taken into account are likely to vary by type of HTA (see Section 1). Youngkong et al. (2009) conducted a review of 18 empirical studies of priority-setting of individual technologies in developing countries. Cost-effectiveness was the most commonly identified criteria (71% of studies), followed by severity of disease (35% of studies). Other commonly used criteria used were: equity/inequity, national priorities, and effectiveness (all of which are mentioned in Table 1). When HTA is concerned with more "macro" issues such as configuration of service delivery or payment methods and incentive schemes, decision making criteria are typically expected improvements in clinical outcomes and, in some cases, resource use (e.g. reduction in hospitalisation). When allocating financial resources to the health sector, key criteria are equity and affordability, and when determining the structure of the health care system and organising service delivery, efficiency is also taken into account (Marsden, Garau & Towse, publication pending).

Norheim et al. (2014) draw attention to a problem which can arise if criteria are specified without the objectives. They suggest that present methods for priority setting have too narrow a focus. Methods often concentrate heavily on cost-effectiveness analysis focussed on health outcomes and health system cost only. Such decision making criteria may not be a useful tool to pursue broader objectives of the health care system ("value for money" in the narrow sense of health outcomes and health system cost is one of several possible important objectives and requires us to be clear what is included in "value"). They claim that there is "urgent need" for a more explicit recognition of the broader aims, in particular equity. This argument highlights the need for decision makers to think about what they wish to achieve through HTA, in order to avoid adopting processes and decision making criteria which only focus on a subset of the overall objectives for the health system.

3. Where do or could decision makers get the evidence and analysis they require?

Once the objectives and decision making criteria have been set, the decision maker must identify evidence requirements, and collect appropriate information. Thorough discussions of evidence requirements for HTA are provided by the World Health Organization (2003) and Goodman (2014)³; these discussions are not replicated here. Example evidence requirements include data on efficacy and effectiveness, costs, resource use and budget impact. Ideally, such evidence is identified through a systematic search (to avoid bias) and is directly relevant to the local setting (to ensure applicability). This evidence is typically collected by the HTA agency, industry or academia, rather than by the decision makers themselves. Note that information on social and political preferences is usually incorporated informally and implicitly when appraising the analyses, rather than collected formally and explicitly as an input to each HTA.

A list of example evidence requirements and possible data sources can be seen in Table 2. Note that some of these evidence requirements may be difficult to identify and/or quantify, which of course is one of the challenges for the AHPF meeting to explore.

3 These documents specify which types of costs and which types of health measures should be considered.

Table 2: Example evidence requirements and data sources.

Data required	Possible data sources
Quantitative data specific to intervention†	
<i>Burden of illness</i>	<i>National registries, national statistics bodies, professional societies, analysts in government departments and the health system, expert clinical advisers, published literature.</i>
Baseline prevalence/incidence rates and epidemiological data (could include non-health outcomes and impact on carers/households)	National registries, national statistics bodies, professional societies, analysts in government departments and the health system, expert clinical advisers.
Relative effectiveness estimates (could include non-health outcomes and impact on carers/households)	RCTs, meta-analyses, systematic reviews, "real-world" studies/observational data: case/control or cohort studies.
Safety data	RCTs, meta-analyses, systematic reviews, "real-world" studies/observational data: case/control or cohort studies.
Quality of life data	National registries, national statistics bodies, professional societies, RCTs, "real-world" studies/observational data: case/control or cohort studies, expert clinical advisers.
<i>Impact on carers and families</i>	<i>National registries, national statistics bodies, professional societies, RCTs, "real-world" studies/observational data: case/control or cohort studies, expert clinical advisers.</i>
Resource use	RCTs, "real-world" studies/observational data: case/control or cohort studies, professional societies, expert clinical advisers.
Unit costs	National formularies, manufacturers, health system data.
<i>Productivity effects</i>	<i>Clinical studies, national registries, national statistics bodies.</i>
<i>Equity impacts</i>	<i>National registries, national statistics bodies, professional societies, expert clinical advisers.</i>
Broader (possibly qualitative) data, not specific to the intervention	
Social preferences	Surveys, consultations with representatives of the public (citizens councils).

†Adapted from Zechmeister-Koss et al., 2014. Additional categories in italics.

Zechmeister-Koss et al. (2014) stress that the quality of data included in an HTA is critical, yet reporting on the identification, justification and quality assessment of the evidence used is often inadequate. They conduct a review of 28 HTA manuals and economic modelling guidelines in a selection of high income countries and discuss the suggested sources of evidence. Note that this paper is focused on evidence requirements for decision analytic modelling (economic modelling in this context), and therefore does not address the issues around social preferences or equity impacts. They find:

- All of the documents promoted the use of a **systematic** (rather than selective) **search** for evidence to minimise bias as much as possible. The documents also agreed that the search for any data should be reported transparently and the sources used must be stated. However, not all documents recommended that all parameters be searched for in this way: some suggested that systematic searches are only necessary for clinical studies.
- **Transparency** in reporting is stressed in particular for sources used/found in a data search, methods of elicitation when using expert opinion, and for data limitations.
- The majority of the data sources that were suggested were **secondary data sources**. Primary data collection was only recommended in some cases for health state utility values and cost data.
- Evidence to populate a model will not usually be based on a single data source but is likely to **require multiple types of information**.
- **Hierarchies** of evidence are not generally made explicit, but preferred data sources are indicated (for example, RCTs and meta-analyses of RCTs are the preferred source for data on efficacy, effectiveness and safety).

The authors comment that whilst some efforts are made in the manuals to suggest data sources, the information is not complete. For example, none of the manuals suggest that administrative data may also be useful for identifying epidemiological dimensions of the disease in question, and some sources are mentioned without discussion of the limitations, and "do not necessarily comply with standards in textbooks". They conclude that the topic of appropriate evidence for analyses within HTA is addressed in a fragmented way, and detailed advice is often missing. This suggests that we may need a "fit for purpose" approach to evidence needs. For example, observational data or real world evidence may be useful in some circumstances (for example related to utilization of the comparator in local practice), but less suitable in others (for example as a primary input on efficacy).

Social value judgments and social and political priorities are key elements of HTA, but collecting data on these can be difficult. Bombard et al. (2011) note that "*Addressing ethical and social values in HTA presents numerous challenges that stem from the plethora of methods that exist and the limited ethics capacity within HTA agencies*". Based on a review of existing literature, Lehoux and Williams-Jones (2007) outline three main methods which are usually used to identify evidence on these issues: 1) primary research (qualitative or quantitative) 2), performing analysis of published literature on ethical and social values, and 3) using expert advice from social scientists and bioethicists. They note that a combined approach may be appropriate depending on the circumstances. For a more detailed discussion on the inclusion of social values and value judgements see Hoffman et al., (2014), Bombard et al., (2011), Lehoux and Williams-Jones (2007).

Returning to the discussion of evidence requirements more generally (relating to those listed in Table 2), the collection of local evidence can, in some cases, be time consuming, costly, and impractical. In such instances it may be more efficient to transfer data or studies from other countries (i.e. adapt them for use in the local setting). This avoids duplication of effort by making the best possible use of existing information.

This transferability of data between countries was discussed at the 2014 AHPF in Manila, Philippines. Key findings included:

- Transfer of HTA reports/evidence may represent an efficient approach to building the local HTA evidence base, particularly when countries (like many in the Asia region) have limited capacity to develop local HTA evidence and/or assessments;
- HTA bodies/decision makers in attendance reported that they do search for relevant external HTA reports when undertaking their own evidence assessments;
- External reports were considered to be most useful for information on methodology and data inputs, rather than for transfer of decisions or social value judgments;
- HTA reports from elsewhere are primarily used as a data source when no local data is available.

The presentations and discussions at the meeting highlighted that the ability to accurately transfer data for HTA is likely to depend on: population characteristics, comparator technologies, efficacy to effectiveness of the new technology, resource use and unit costs (cost- effectiveness analysis), methods used/reporting arrangements, budget impact, and any "value for money" threshold. In addition, evidence from the literature (Barbieri et al., 2010; Pichon-Riviere et al., 2012) suggests that relative treatment effect is generally considered transferable, whereas resource use, unit costs and baseline risk are considered less transferable.

Importantly, the alternative to transfer is not perfect local information: uncertainty is inherent in the HTA process. The challenge is trading off the potential for errors associated with transferred HTA, against expenditure of scarce local resources to produce local (but not perfect) information. The cost of trying to conduct too much local HTA can be an overburdened HTA system leading to delays for patient access and an adverse impact on incentive to innovate.

Note that evidence requirements and data sources are likely to vary at different levels of HTA (see discussion of types of HTA in Section 1). Whilst RCTs and national registries (and other sources as suggested in Table 2) are useful for HTA of individual technologies or bundles of technologies (at either the national or regional level), they are less useful for sourcing data for HTA used for decision making around the scope or structure of the healthcare system. Indeed RCTs and meta-analyses of system level comparators are infrequent, if not practically impossible. Considering HTA of health system architecture, Garrido et al. (2010) state that

decision making is largely based on "Expert and professional opinion, political judgement, the interpretation of values and traditions, and views from stakeholder and contingencies...opposed to information emanating from the application of scientific methods".

Once the data for the analyses has been collected and synthesised (either through an economic model, meta-analysis or otherwise), the evidence which comes out of the HTA could be a conclusion that one intervention is safer, or more clinically effective, costly, cost-effective, or socially/politically desirable than another (or a range of other) intervention(s). In practice, most HTAs provide information on efficacy or effectiveness, budget impact, and cost-effectiveness. Information on other factors is not routinely made available. Information from the HTA must then be appraised as part of the decision making process. Decision making processes are discussed in Section 4.

4. What is the decision making process?

Decision analysis is a method for

"quantifying decision problems under conditions of uncertainty, in which the probability of each event in a chain of events, along with the consequences of such events, is explicitly stated"
(Culyer, 2010).

Deliberative decision making processes (including HTA and decision criteria) are therefore used within healthcare to aid the decision maker in systematically and transparently selecting between alternative courses of action. This is therefore the *appraisal* part of the HTA. Such decision making processes can help decision makers appraise the existing evidence to come to "simple" decisions (possibly when faced with only one objective, or clear strong evidence of benefit), or to help decision makers reconcile multiple criteria and (potentially) conflicting sources of data and come to a verdict.

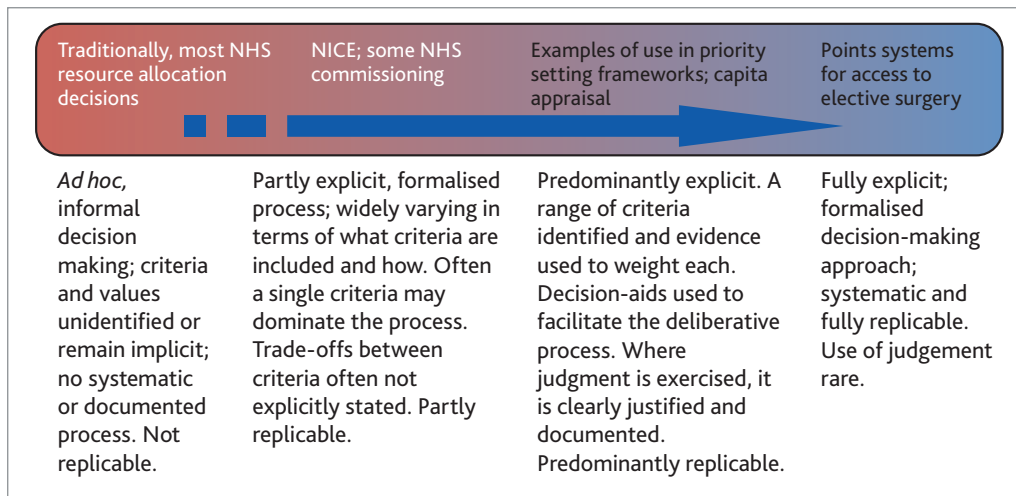
The decision rules that are used will be linked to the objectives of the decision maker (as discussed in Section 2), and in turn to the legal and cultural background of the decision making. For example, in the "simple" scenario, if the primary objective is to achieve efficient allocation of resources, then the decision rule could be that a technology is implemented if the incremental cost-effectiveness ratio is below a specified cost-effectiveness threshold, or, if there is evidence of added therapeutic value, that the drug would be approved, subject to a separate pricing process. In such cases the deliberative process encourages the decision maker to consider both uncertainty and the consequences of the decision for the single objective.

However, as discussed previously, the decision maker is likely to have multiple objectives. On top of possible conflicts in the clinical and economic evidence base, decision makers may have to take into account a range of other criteria, for example equity considerations which have not been quantified. This means that despite rigorous scientific analyses to produce the clinical part of the HTA evidence, judgement, via a deliberative decision making process, is still required by the decision maker, in order to address a multitude of potentially conflicting criteria.

Multi-Criteria Decision Analysis (MCDA) is a method which explicitly considers multiple criteria (objectives) in decision-making environments. MCDA has been defined as "A set of methods and approaches to aid decision-making, where decisions are based on more than one criterion, which make explicit the impact on the decision of all the criteria applied and the relative importance attached to them" (Devlin and Sussex, 2011). It has been argued that use of MCDA as a method to address decision making with multiple objectives is beneficial as increases replicability, transparency and consistency in decision making. Transparency is important in both the *assessment* (see section 3) and the *appraisal* or *decision making* parts of the HTA. This makes it easier to hold decision makers to account for the decisions they make, as compared to use of "opaque deliberative processes" (Devlin & Sussex, 2011). Transparency also helps all stakeholders, including those making the decisions, understand the rationale for specific decisions. In the long run, this can help improve overall access and affordability as all stakeholders can contribute to useful evidence generation and problem solving. The use of MCDA forces decision makers to be explicit, and therefore transparent, about their objectives (See section 2), decision making criteria, and the relative importance (or weights) that they attach to each of these.

There are many different approaches to MCDA which range from use of sophisticated algorithms to identify optimal choices to less technical approaches which simply add structure to a deliberative process. Figure 2 shows the full spectrum.

Figure 2: Spectrum of approaches to MCDA



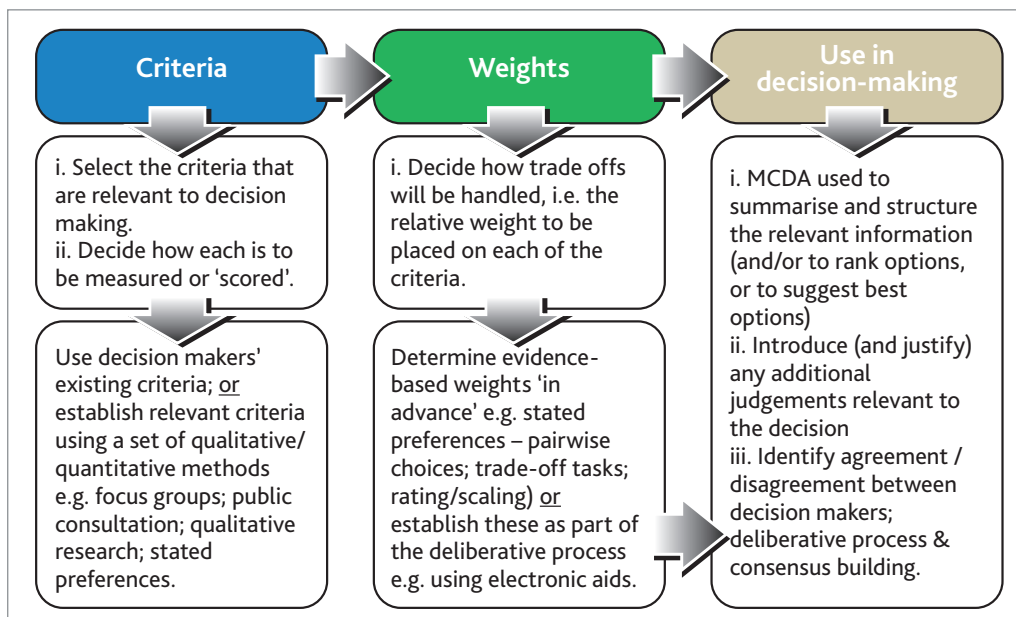
Source: Devlin & Sussex, 2011

Abbreviations: NHS = English National Health Service; NICE = National Institute of Health and Care Excellence.

Devlin and Sussex explain that the most appropriate approach is likely to depend on the situation: there is a tradeoff between the potential benefits from being more explicit (greater transparency, consistency and replicability), and the costs of being 'too explicit' (for example, limited scope to exercise judgement and to make exceptions).

However formulaic or deliberative the approach, MCDA requires the relevant criteria to be identified, and relative importance to be attached to each. Given the criteria and the weights, MCDA combined the evidence to *suggest* a "best choice", or a ranked list of options. Note that MCDA does not decide which criteria to include, or which weight should be given to each criterion. That is for the decision makers. There is judgement in the process. Figure 3 provides an overview.

Figure 3: Process for MCDA



Source: Devlin & Sussex, 2011

Devlin & Sussex stress that MCDA does not replace decision making, but rather it is a tool to support decision makers. Even if the criteria and weights capture societies' preferences well, there are still likely to be one-off considerations which are relevant to particular decisions. They note that "all multi-criteria decisions require degrees of judgement: MCDA aids the exercise of that judgement".

Despite the advantages, MCDA has not been widely adopted as a tool to aid decision making in healthcare. Decision makers and HTA agencies are concerned that MCDA will take away the flexibility that is valued by appraisal committees when making difficult decisions. NICE, for example, is one agency which has shied away from using a formal MCDA approach, stating that MCDA is "in its infancy" in the context of healthcare, and therefore should only be used experimentally. It is fairly clear about their criteria: NICE committees must consider the scientific evidence, plus "a range of issues (including any ethical issues, social value judgements, equity considerations and inequalities in outcomes) and policy imperatives, as well as equality legislation" (NICE, 2014). Yet they explicitly avoid dictating how these different factors should be taken into account: "There are no hard and-fast rules or mechanisms for doing this: the Committee should make conscious and explicit use of its members' skills and expertise" (NICE, 2014). They do however note that the deliberative process should be well documented. For example, the report should explain what part burden of illness and epidemiology played in the decision making, or whether the decision was based solely on CEA and budget impact. In practice, few HTA agencies report this level of detail at present.

Another example, from Canada, is presented by Diaby et al. (2015) who describe an expert workshop which was organised to discuss the pros and cons of introducing MCDA for HTA in Canadian health care decision making. The panel brought perspectives from academia, government, research and non-profit sectors, and the audience included payers, policy-makers, academics and industry representatives. Overall the panel was broadly in favour of the theoretical benefits of HTA, but raised concerns about differences in decision making between provinces, political hurdles, and methodological challenges associated with implementation of MCDA.

An HTA framework has been proposed in Italy which combines the EUnetHTA core model⁴ with an MCDA approach (Radaelli et al., 2014). MCDA has been introduced in some middle and low income countries (LMICs) on an exploratory basis. Pilots have been conducted which seek to identify the important criteria for decision making in Brazil (Mirelman et al., 2012), Cuba (Mirelman et al., 2012), Ghana (Jehu-Appiah et al., 2008), Nepal (Mirelman et al., 2012), Thailand (Youngkong et al., 2010; Youngkong et al., 2012a; Youngkong et al., 2012b) and Uganda (Mirelman et al., 2012). The most important criteria as identified in the pilots are included in Table 3.

Table 3: Decision making criteria used in MCDA pilots in LMICs

Country	Key decision making criteria
Ghana	Treatment of vulnerable populations and cost-effectiveness
Brazil	Cost-effectiveness, total beneficiaries from the treatment
Cuba	Treatment of the middle age group, treatment subsidies
Nepal	Health benefit (effectiveness), disease severity
Uganda	Disease severity, cost-effectiveness
Thailand	Effectiveness, preventative interventions

Source: Youngkong et al., 2009, 2010, 2012a, 2012b.

Two of these studies (Youngkong et al., 2012a; Youngkong et al., 2012b) then use these criteria within an MCDA process to rank health care interventions in the design of health care packages in Thailand. The pilots were received positively: Youngkong et al (2012a) comment: "MCDA seems to have considerably contributed to fairness in priority setting. The merits of MCDA are especially clear when the present process is compared with the situation before where priority setting was said to be ad hoc and driven by interests of stakeholder groups." Youngkong et al. (2012b) add: "MCDA holds potential to contribute to a more transparent and accountable priority setting process, and further application of this approach in the prioritisation of health interventions is warranted". It remains to be seen whether this suggestion will be followed, and whether MCDA will be used more widely adopted in future.

⁴ The EUnetHTA Core Model is "a methodological framework for shared production and sharing of HTA information". See <http://www.eunetha.eu/hta-core-model>.

Summary

In summary, HTA could be used to inform a variety of different types of decisions, although most commonly it is used for decision making around individual technologies or bundles of technologies. The objectives behind the existing HTA process are rarely made explicit, though in some cases these can be inferred from the stated decision making criteria. Evidence suggests that common decision making criteria at the individual technology level include effectiveness, the manageability of the budget impact, cost-effectiveness, severity of disease, equity, and national priorities (Youngkon et al., 2009). No information was identified in the literature around explicit objectives of decision making for other types of HTA.

The quality of evidence used in the HTA is vital: where possible evidence should be identified through systematic searches and sources should be well documented. Transfer of data from non-local sources may be useful, although barriers exist, such as differences in population characteristics, comparator technologies, resource use and unit costs. Importantly, the alternative to transfer is not perfect local information, as uncertainty is inherent in the HTA process. Comparative data around health system architecture is less structured than that for individual technologies, and evidence suggests that HTA at this level is more likely to be based on expert opinion and/or political judgement, rather than high quality data sources (Marsden et al., publication pending).

HTA can provide an indication of which intervention (or bundle or health system structure) is safer, or more clinically effective, costly, cost-effective, or socially/politically desirable than another (or a range of other) intervention(s). This information must then be appraised as part of a decision making process. The purpose of an evidence based decision making process is to provide a guide to systematic and transparent decision making. Such processes must often combine and reconcile different decision making criteria, and could range from complex algorithms, through structured decision support for a Committee, to less formal deliberative approaches. Various different approaches to MCDA could be used to add structure and transparency to decision making processes, and pilots conducted in LMIC have been reported favourably. MCDA has not, however, been widely adopted in health care decision making to date.

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