

What Has Health Technology Assessment Ever Done for Us?

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Abstract

Health technology assessment (HTA) has, in the past three decades, become a well-established part of coverage decisions in many countries. Despite this, very little is known about HTA's impact on health systems. Few studies evaluate the benefits of HTA for health outcomes, access to care or public budgets. In contrast, HTA has relatively clear upfront costs, which could potentially discourage policy-makers from institutionalizing HTA, especially in resource-tight contexts. It may be premature, though, to dismiss the policy altogether: its less tangible modernizing goals are still significant.

Introduction

Health technology assessment (HTA) has been one of the most popular policy tools of health care reimbursement, pricing and purchasing of the past thirty years. With the aim of informing coverage decisions by means of multidisciplinary evaluation of evidence, HTA has the backing of a large epistemic community. Public and private consultancies spread the message of HTA around the world (1,2), as do international actors such as the World Health Organization (3), the World Bank (4) and the European Union (5), and international professional networks such as HTAi, ISPOR, RedETSA, HTAsiaLink and EUnetHTA (6).

Indeed, many governments have been seduced by HTA's promise: to improve allocation of resources in health care. Since the late 1980s, most of Western Europe as well as Australia, New Zealand, Canada and several US payer organizations have established dedicated HTA agencies. Some Asian (e.g. Taiwan),

Latin American (e.g. Brazil) and Central and Eastern European (e.g. Poland) countries followed in the early 2000s. Other countries, however, have been more hesitant to institutionalize HTA bodies. This piece explores what health technology assessment has to offer to decision-makers of countries without institutionalized HTA, especially in low and middle resource contexts.

Vague benefits

Health economists agree that HTA is especially important in resource-tight contexts because opportunity costs of misdirected resources are higher, in relative terms, than in rich economies (7,8). This is a convincing claim. However, empirical evidence of the impact of HTA on either health outcomes or spending, the end goals of HTA, is scarce.

Policy evaluation of HTA is practically non-existent (9–11). A 2008 review found that only four published studies assessed the impact of HTA on health outcomes or spending (12). Most studies focus on *outputs* of HTA agencies (e.g. number of HTA reports produced) and the extent to which conclusions of HTA reports are followed by decision-makers (10) – leading an observer to conclude that “the available knowledge to assess the effectiveness of HTA is just a bunch of ‘case series’ and ‘case reports’, with little external validity and usually surrogate outcomes” (13). Indeed, we know next to nothing about HTA’s impact on health outcomes (9). An Austrian study, one of the most comprehensive country-level evaluations to date, excludes health outcomes “due to methodological limitations” (14). Similarly, a recent report on the United Kingdom’s HTA program found that HTA has had an impact on patients’ care, but it did not assess outcomes (15). Improved access to care as a result of institutionalized HTA is not explicitly mentioned in any reviews (9), except for an industry-commissioned report (16). Finally, evaluations of economic impact are mixed. An early Canadian study found projected annual savings between \$16 and \$27 million (17,18); the Austrian analysis concludes that HTA recommendations had led to a “significant” reduction in expenditure, but deems precise monetary quantification impossible

(14,19). Another review, however, notes that while HTA's effects on spending are unclear, the guidance of the United Kingdom's NICE has led to an increase in spending, rather than decrease (10). The immediate and medium-term budgetary consequences of establishing an HTA body in low-resource contexts, have not been investigated by any study in Hailey and colleagues' recent review (9).

In short, the empirical benefits of HTA are at present unclear. We know little about how HTA affects patients' health and access to care, and little about what it does to public budgets.

Clear costs

For a field with "assessment" in its name, the absence of empirical evaluation is surprising. Policy evaluation is a complex exercise, in this case further complicated by the lack of a uniform recipe for design and implementation of HTA processes (or, for that matter, consensus on HTA methodology) across countries. The real-world variation might explain why much of the HTA literature focuses on the "uptake" of HTA by decision-makers – the tacit assumption being that impact can only be measured under ideal conditions, where expertise reigns unhindered by politics. However, this is of little relevance to policy-makers looking for real-world success stories and lesson-drawing opportunities from other countries' experience with HTA.

The upfront costs, on the other hand, are relatively clear. Setting up an HTA body is not cheap: German IQWiG has an annual budget of approximately EUR 13 million (USD 14.8 million); Polish AOTMiT EUR 3.5 million; Belgian KCE EUR 10 million (20). To compare: KCE's budget represents about 30% of the annual budget of a large university hospital in the Czech Republic (21). Further, there is a concern that HTA might in effect increase expenditure. An independent with decision-making powers HTA agency may prioritize evidence of cost-effectiveness or relative effectiveness over budget impact (more than the ministry of health or payers), leading to coverage of technologies that would have otherwise been denied reimbursement. Even a purely advisory body may make implicit rationing difficult for decision-

makers, and bring unwanted attention to the lack of funds or inefficiencies in the health system. Likewise, introducing a new institution may destabilize the practice of delaying reimbursement decisions, common to some resource-tight countries. While all of these potentialities may ultimately be good news for patients, they are unlikely to be immediately attractive to policy-makers focused on health gains and cost-containment in the short term.

HTA is also not easy to implement: creating new institutions and adjusting pricing and reimbursement processes requires more than a couple of days' worth of legislative effort. In addition, many low-resource countries first need to train sufficient numbers of HTA experts. Both the financial costs and the effort might well be worth it – if policy-makers can be convinced HTA delivers on its promises.

Modernizing mission

Beyond the uncertain effects of HTA on health systems, an additional promise of HTA concerns its consequences for decision-making styles and cultures and for social justice. Some evaluations suggest, in line with Weiss' "Enlightenment" conceptualization of the knowledge-policy relationship (22), that HTA acts by changing mindsets rather than immediately determining actions (12,14). Institutionalized HTA marks a departure from the opaque and arbitrary pricing and reimbursement practices customary in many countries. It is a departure underpinned by normative and epistemic beliefs in the superiority of evidence-based decisions, independence of expert input, transparency and inclusiveness of social actors ("stakeholder dialogue") (23). These are linked to the rise of evidence-based medicine (24) and perhaps more generally "good governance" and the trend of expert decision-making (25). None of these principles guarantee improving the quality, equity or sustainability of health systems. Whether rational-comprehensive policy-making leads to better outcomes than "muddling through" incremental adjustments, has been a debate for decades (26), and good governance probably attracts more critics than

advocates (27). However, for some decision-makers, a focus on evidence, transparency and inclusiveness may represent values in themselves – worth the budget of a provincial hospital.

An equally compelling promise of HTA (and equally difficult to quantify) is connected to its potential of increasing procedural justice in allocative decisions (28). Here, too, much depends on the details of the institutional setup of HTA – Daniels and van der Wilt, for instance, argue that a deliberative element is necessary for HTA to produce legitimate and fair decisions (29). However, HTA’s proposal to reduce arbitrary decisions touches directly on health systems’ ambitions of equity and societies’ desires for fair institutions.

For many low- and middle-income countries today, the combination of theoretical and normative arguments for HTA offers a powerful modernizing vision for their health systems. For example, a 2014 World Health Assembly resolution mentions both efficiency concerns and principles of evidence-based policy-making as reasons for encouraging HTA, especially in low-income countries (30). This modernizing potential makes HTA hard to dismiss, despite a surprising absence of evidence of its effects after more than two decades of existence. Other policies, from international reference pricing to risk-sharing agreements or implicit rationing, may be easier to implement and fare better at containing costs, but none offer as complex a promise as HTA. This makes HTA currently a policy without direct alternatives, potentially attractive to policy-makers around the world for many different reasons.

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