

How should health technology assessment (HTA) consider the Global Value of health products to support public decision?

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INTRODUCTION

Traditional health technology assessments (HTA) primarily rely on clinical and cost-effectiveness metrics. Health economic evaluations have traditionally focused on HTA-based medico-economic assessments and budget impact analyses to ensure the financial sustainability of a new health product for payers. However, the tools of health economics extend beyond this scope. It is increasingly important to consider additional dimensions—both in terms of evaluation criteria and analytical methods. By broadening the spectrum of methods and criteria, it becomes possible to more comprehensively capture the impacts of a health technology. This broader approach enables the consideration of alternative impacts, expands the range of strategies that can be evaluated, and opens up the evaluation results to a wider array of decision-makers.

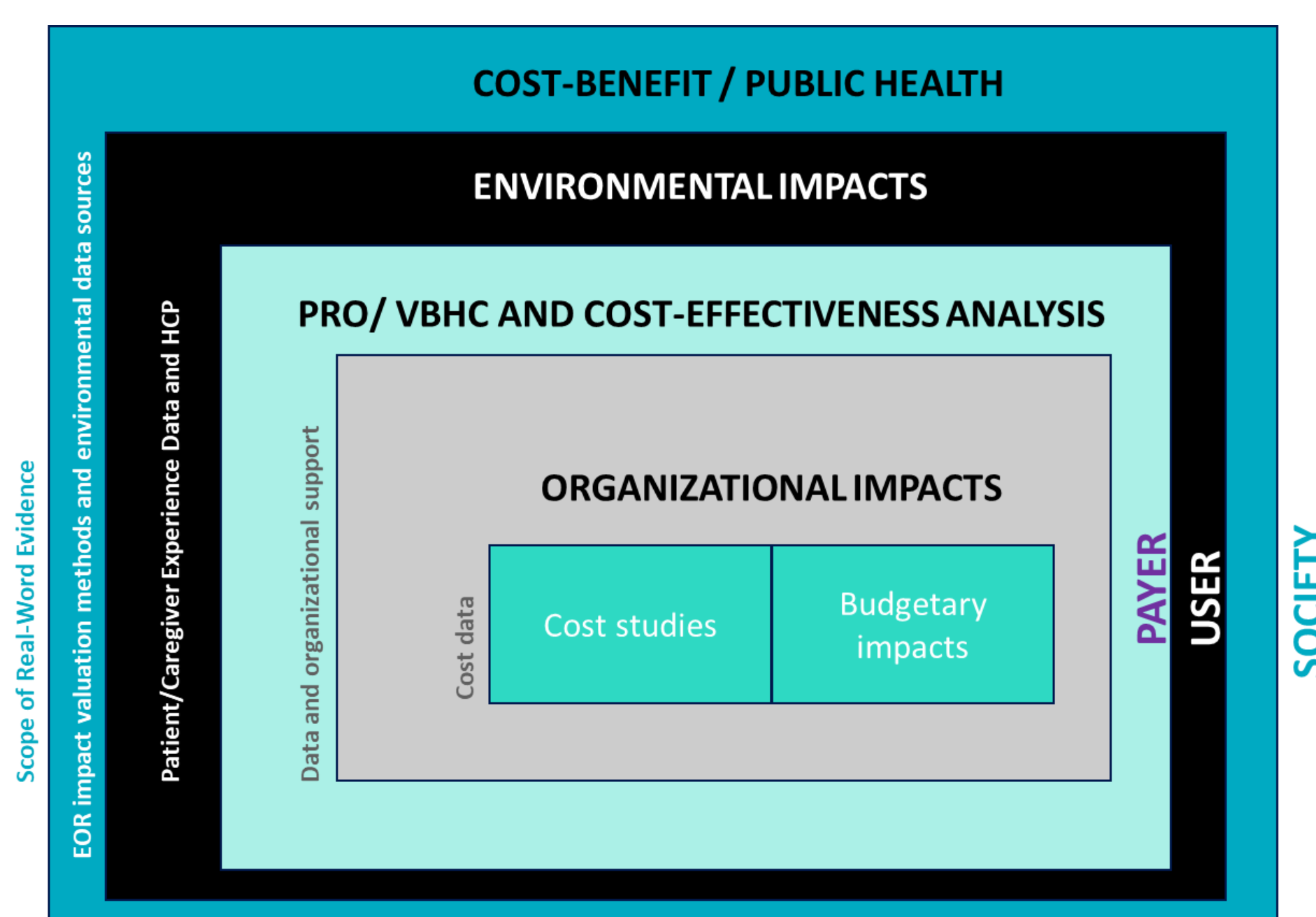
METHOD



RESULTS

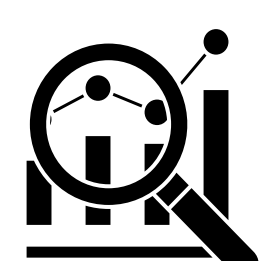
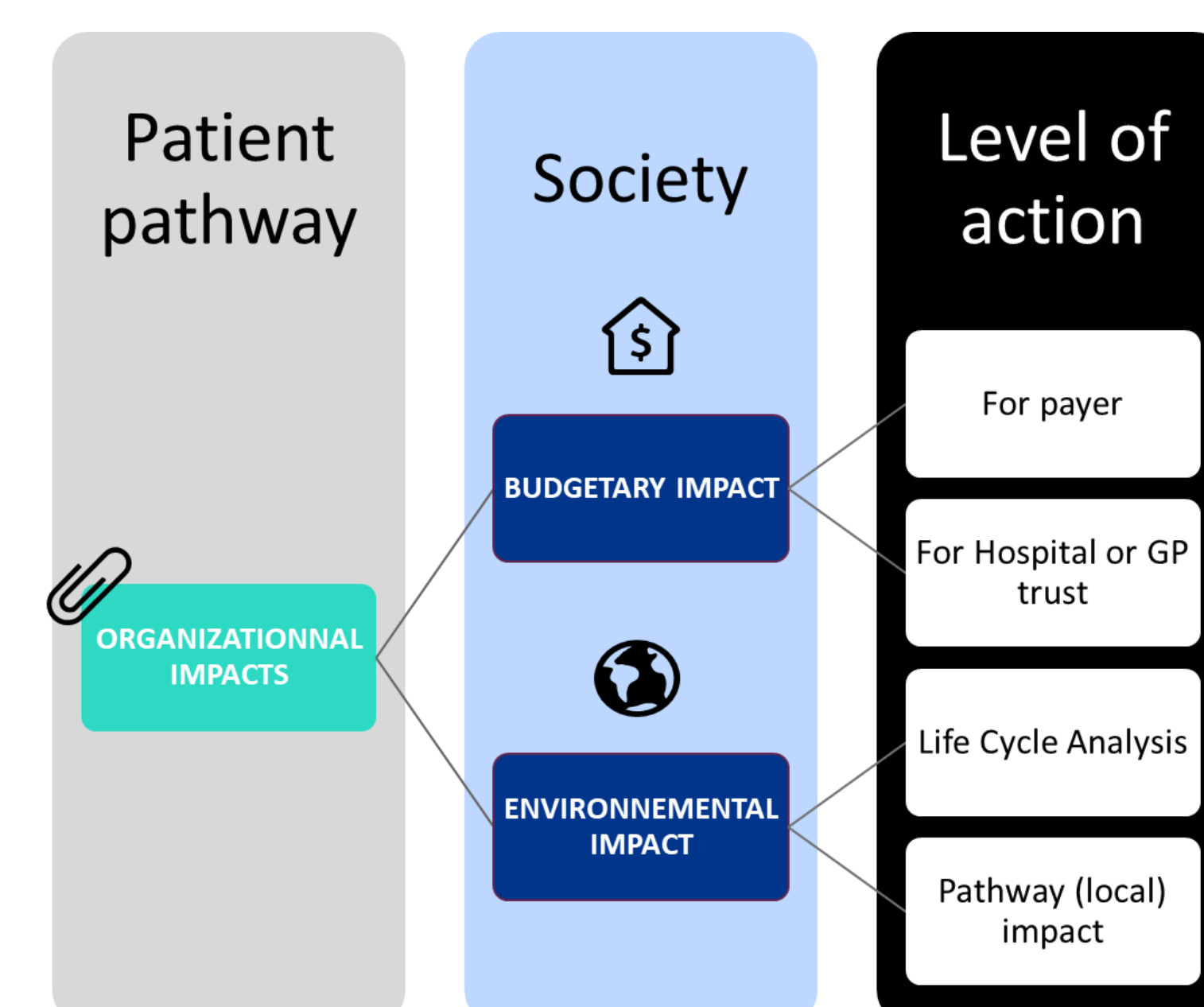
A non-exhaustive literature review identified additional externalities and value components of health technologies, which can be grouped into three key domains: **1. Public health impacts**, which incorporate epidemiological and population-level considerations into economic evaluation and raise fundamental questions about the efficiency of investments in prevention and health policies. **2. Patient preferences and experience**, which account for individuals' perceptions of benefits and risks, as well as the expectations of users within the healthcare system. **3. Organizational and environmental impacts**, which reflect how innovations affect care delivery structures, professional practices, and health system resources, along with their ecological footprint—an increasingly critical issue for human and planetary survival.

Figure 1. Types of Economic Studies by Level of Data and Analytical Perspectives



HCP: Healthcare Provider ; PRO: Patient Reported Outcomes ; VBHC: Value-Based Healthcare.

Figure 2. Organizational Impact Breakdown and Level of Decision



Focus on value equation

Current discussions around economic evaluation results still center predominantly on cost-effectiveness ratios, often without accounting for the contextual circumstances in which these ratios apply, nor the characteristics of the patient populations concerned. Evaluation frameworks rarely incorporate criteria that reflect population-level perspectives—for example, the long-term benefits of funding innovative pediatric treatments, which extend beyond clinical efficacy to include gains in productivity for both patients and caregivers. Incorporating context and a population-based lens allows us to better capture downstream organizational efficiencies, improvements in quality of life, the lived experiences of patients, caregivers, and professionals, and to address critical issues such as disability, end-of-life care, and healthy aging¹. This broader perspective also paves the way for embedding equity and reducing health inequalities within economic evaluations. Patients' perspectives remain undervalued, as do the broader societal and organizational impacts of health technologies along the care

continuum. Environmental impacts are likewise still largely absent from current health economic modeling. Expanding the definition of health economic evaluation is therefore essential. It allows for a more utilitarian and ethical approach—one that seeks to maximize not only collective utility but also, implicitly, individual benefit, thus better informing public decision-making in complex healthcare systems. The concept of a “value equation” should be interpreted with caution. On one hand, it provides a structured way to capture all relevant value components of a health technology. On the other, it risks being misused as a rigid threshold or implicit willingness-to-pay benchmark, potentially reducing complex decisions to binary outcomes—such as reimbursement ‘yes’ or ‘no’. Multi Criteria Decision Analysis (MDCA)² could be a way to investigate such equation.

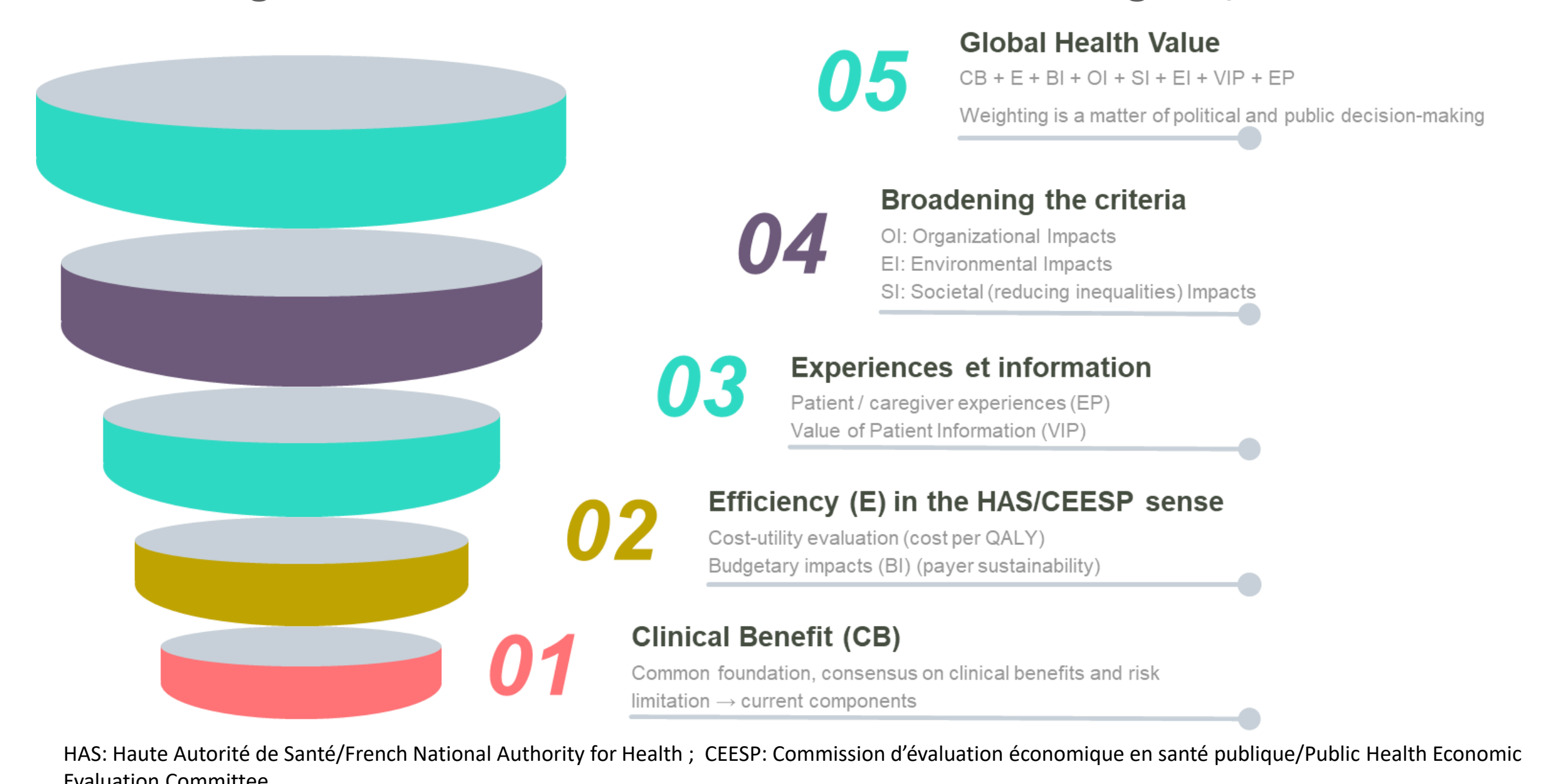
Figure 3 . Equation of Global Value of Health Technology

$$\text{Global Value of Health Products} = \text{BC} + \text{E} + \text{IB} + \text{IO} + \text{IS} + \text{IE} + \text{VIP} + \text{EP}$$

where:

- BC: Clinical Benefit,
- E: Efficiency Level,
- IB: Budget Impact,
- IO: Organizational Impact⁷,
- IS: Societal Impact ^{3,4},
- IE: Environmental Impact ^{5,6},
- VIP: Value of Information for Patients,
- EP: Experience of Patients and Caregivers.

Figure 4 . Main organizational outcomes criteria identified through OI/OBIM studies



HAS: Haute Autorité de Santé/French National Authority for Health ; CEESP: Commission d'évaluation économique en santé publique/Public Health Economic Evaluation Committee

CONCLUSION

Assigning weights to individual criteria could help prioritize specific dimensions of value. However, such weighting is ultimately a political decision, shaped by public health priorities and regulatory frameworks, rather than purely a methodological consideration. Ultimately, decision-making informed by economic evaluation should not be reduced to a single numeric result. Rather, the focus should be on a transparent and deliberative process that integrates multiple criteria and reflects broader societal values. This approach better aligns with the purpose of HTA: to illuminate decisions—not to replace them.

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