Integration of Relevant Issues and Values in Health Technology Assessment within the Framework of INTEGRATE-HTA

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Background
Health Technology Assessment (HTA), summarizes information on medical, social, economic, ethical and legal aspects of health technologies in a systematic, transparent, unbiased, robust manner. However, relevant issues like patients’ perspectives, context, setting and implementation are sub-optimally assessed in current HTAs and guidance on integrating all relevant aspects to aid health policy / decision making are currently still missing.

Aim
To bridge HTA methodology gaps and support good HTA based health policy and decision making by identifying, adapting and developing, methods and processes for integrating relevant issues of health technologies suitable for the assessment of complex interventions.

Method
- Systematic literature searches: Medical and non medical databases (iterative search approach: Each search iteration informs subsequent searches to allow for the integration of emerging evidence / capture complexity of the search question).
- Search for key authors / reference lists / grey literature
- Search for methods of integration in HTA agencies guidelines.

Results
Multi-criteria decision analysis (MCDA) in HTA
Identifying and weighting (multiple / competing) criteria and assigning performance scores (relative importance) to improve decision transparency
- Deliberative MCDA approaches / tools (implicit): E.g. Decision conferencing, Discrete Choice Experiments (DCE), Conjoint Analysis, and 1000 Minds software for eliciting preferences
- Quantitative MCDA approaches (explicit): E.g. linear aggregation \( \sum (weight \times score) \), Analytical Hierarchical Process (AHP), Multi-attribute Utility Theory (MAUT), Outranking and Data Envelopment Analysis (DEA) for establishing weights / scores across criteria
- The EVIDEM Framework: MCDA Value Matrix
- Accountability for reasonableness (AR): E.g. Used together with Program Budgeting and Marginal Analysis (PBMA) for integrating fairness in priority-setting processes

Approaches of integration by selected HTA agencies
- NICE: Integration of stakeholder perspectives in scoping process
- SBU: Integration of patients’ perspectives throughout assessments
- IQWiG: No formal procedures for integration of relevant issues.

Conclusion
- Frameworks for the assessment of some relevant issues in HTA exist e.g. EUNetHTA core model, but processes of integration are still underdeveloped
- Ethics, equity, fairness, socio-cultural issues and patents’ perspectives are considered in HTAs, but context and implementation remain unaddressed
- Some HTA agencies unsystematically integrate stakeholders perspectives or context criteria after assessment but no explicit processes e.g. IQWiG.
- Continuum between deliberative and quantitative MCDA approaches of integrating issues and value in HTA
- The INTEGRATE-HTA Project (www.integrate-hta-eu) aims to further develop approaches for bridging methodology gaps to achieve comprehensive, transparent and explicit HTA.

INTEGRATE-HTA is Co-funded by the European Union

Grant Nr. 306141. The sole responsibility for the content of this presentation lies with the authors. It does not necessarily reflect the opinion of the European Union. The European Commission is not responsible for any use that may be made of the information contained therein.

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Fig. 1. Goetheheus, MM et al. Evidence and Value: Impact on DecisionMaking – the EVIDEM framework and potential applications. BMC Health Services Research 2008, 8:270. doi:10.1186/1472-6963-8-270