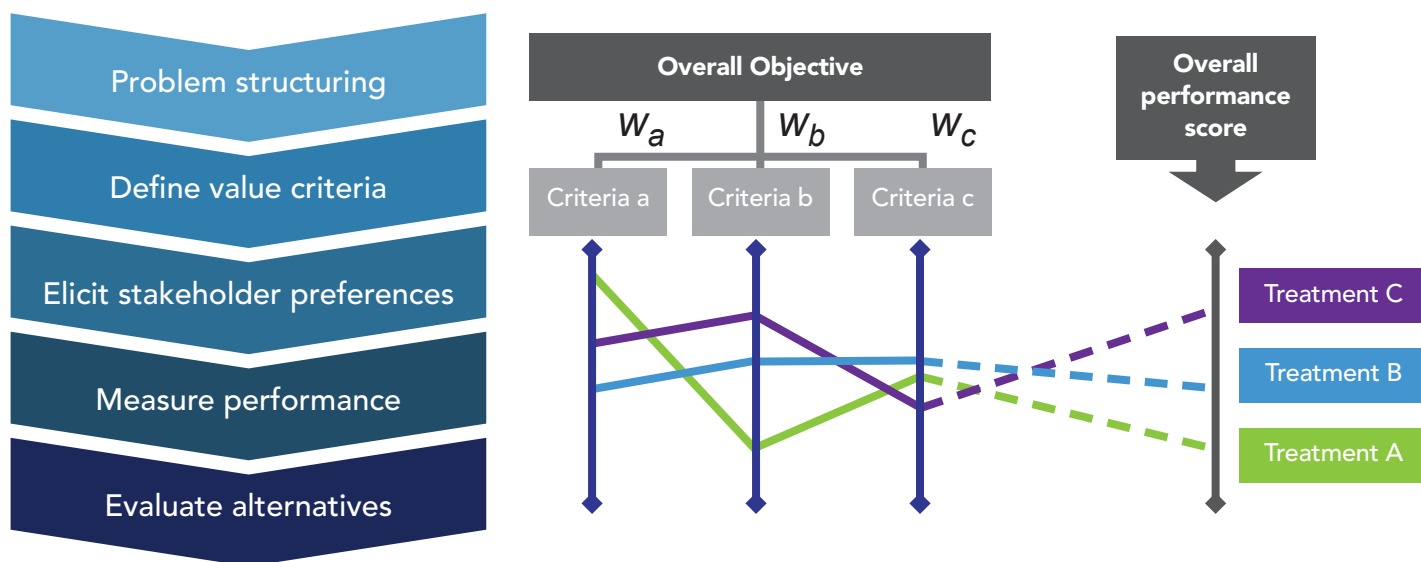


# Multi-Criteria Decision Analysis (MCDA)

Improving decisions and value communication

*"... a formalization of common sense for decision problems which are too complex for informal use of common sense."*  
Keeney 1982

MCDA provides a framework for breaking down complex problems into more manageable components, defining and understanding the relationship between these components, measuring each component, and then combining them to identify solutions.



## Applications of MCDA

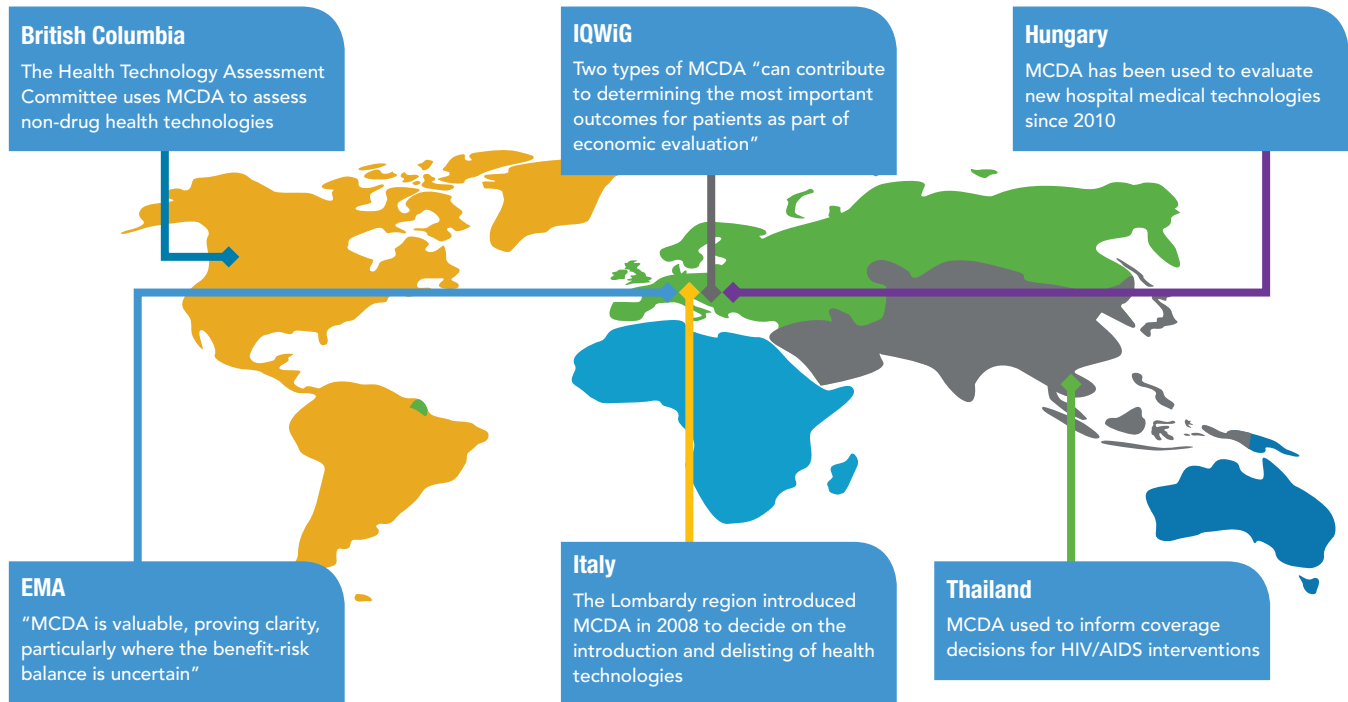
- MCDA may be used throughout the product development lifecycle to improve internal decision making by fostering a shared understanding between teams and channeling resources to compounds with the greatest likelihood of achieving reimbursement.
- MCDA is also used to support value communication where conventional methods may not be adequate, for instance, where value messages include patient convenience, unmet need, severity of disease, or safety; and, where the benefit-risk balance is unclear, such as when a product is effective but has a different safety profile compared with other products.

## Benefits of MCDA

- Foster a shared understanding of the decision problem and identify areas of important disagreement
- Ensure all relevant factors (including intangibles) are considered in decision making and value communication
- Quantify stakeholder priorities and preferences
- A transparent link between performance, judgments, and decisions

## MCDA is Being Used By Decision Makers Around the World

A non-exhaustive list of applications



### Getting a Head Start with Evidera

Our team of MCDA specialists apply best practice to tailor MCDA design to your needs and draw on our internal capacity in pharmacoepidemiology, literature reviews, modeling techniques, preference surveys, and decision conferencing to ensure the MCDA is delivered to a high quality. We support our clients with MCDA training and bespoke MCDA projects.

To discuss how MCDA can support your market access objectives contact us at [info@evidera.com](mailto:info@evidera.com). For further information on the ISPOR MCDA Task Force and Evidera’s support for this initiative visit: <http://www.ispor.org/taskforces/multi-criteria-decision-analysis-grp.asp>

### Selected Publications and Presentations

**Marsh K, Goetghebeur M, Thokala P, Baltussen R** (Eds). Multi-Criteria Decision Analysis to Support Healthcare Decisions. 2017 Springer International Publishing.

**Tervonen T, Liesio J, Salo A.** Modeling Project Preferences in Multiattribute Portfolio Decision Analysis. *Eur J Oper Res.* 2017 Nov; 263(1):225-239. doi: 10.1016/j.ejor.2017.04.051.

**Marsh K, Caro JJ, Hamed A, Zaiser E.** Amplifying Each Patient’s Voice: A Systematic Review of Multi-criteria Decision Analyses Involving Patients. *Appl Health Econ Health Policy.* 2017 Apr;15(2):155-162. doi: 10.1007/s40258-016-0299-1.

**Marsh K, Zaiser E, Orfanos P, Salverda S, Wilcox T, Sun S, Dixit S.** Evaluation of COPD Treatments: A Multicriteria Decision Analysis of Acclidinium and Tiotropium in the United States. *Value Health.* 2017 Jan;20(1):132-140. doi: 10.1016/j.jval.2016.08.724.

**Marsh K, IJzerman M, Thokala P, Baltussen R, Boysen M, Kalo Z, Lonngren T, Mussen F, Peacock S, Watkins J, Devlin N.** Multiple Criteria Decision Analysis for Health Care Decision Making-Emerging Good Practices: Report 2 of the ISPOR MCDA Emerging Good Practices Task Force. *Value Health.* 2016 Mar;19(2):125-37. doi: 10.1016/j.jval.2015.12.016.

Thokala P, Devlin N, **Marsh K, Baltussen R, Boysen M, Kalo Z, Longrenn T, Mussen F, Peacock S, Watkins J, IJzerman M.** Multiple Criteria Decision Analysis for Health Care Decision Making-An Introduction: Report 1 of the ISPOR MCDA Emerging Good Practices Task Force. *Value Health.* 2016 Jan;19(1):1-13. doi: 10.1016/j.jval.2015.12.003.