

MCDA

Multiple Criteria Decision Analysis

Setting Priorities and Encouraging Transparency in Healthcare

MCDA is a deliberative process used to aid decision making in healthcare, in which decisions take into account multiple considerations and perspectives of different stakeholders. Identifying, prioritizing, and addressing healthcare objectives systematically helps ensure that the needs of all interested parties are considered in healthcare decisions—with increased participation and greater transparency¹⁻³

MCDA CAN BE PERFORMED USING BASIC STEPS*

DEFINE THE PROBLEM⁴

What decision is being made?

What are the alternative actions under consideration?

Who are the stakeholders?

MCDA EXAMPLE¹⁰

Decision: Should a novel monoclonal antibody (obinutuzumab) for the treatment of non-Hodgkin's lymphoma be reimbursed?

Alternatives:



Reimburse



Do not reimburse

Stakeholders:



Patients, clinicians, payers

Potential criteria:



Need for the intervention



Comparative outcomes



Type of benefit



Economic impact



Knowledge about intervention

Performance parameters:

Need:

- disease severity
- unmet need (innovation)
- size of patient population

Outcomes:

- effectiveness (eg., progression-free survival) /safety
- patient-perceived benefit

Type of benefit:

- preventive versus therapeutic



Economic:

- intervention cost
- other medical costs
- non-medical costs

Knowledge:

- quality of evidence
- expert consensus
- guideline support

SELECT & STRUCTURE CRITERIA⁴⁻⁸

Identify the objectives (criteria for success) of all interested parties

MEASURE PERFORMANCE^{4,6,7}

Determine how to measure the performance of each alternative action on each criteria

* Additional MCDA steps will vary across health systems, but may include methods for weighing (prioritizing) criteria, selecting scoring methods, calculating an aggregate score that captures an intervention's total value, accounting for uncertainty, and analyzing and reporting results in a useful format.

DID YOU KNOW?

According to the **WHO**, countries are increasingly using MCDA for health technology assessment as an alternative to standard cost-effectiveness analyses⁹

Using MCDA, alternative actions can be ranked based on their overall performance.⁵ MCDA can:

Improve decision-making in healthcare⁶

Guide regulatory and public policy decisions⁵

Promote participation and transparency in the health sector^{1,3,4,8}

Transparency means more accountability of public entities and other decision makers, and may provide patients with valuable information about the basis for the healthcare decisions that impact their lives.

WHO=World Health Organization. | We thank Martina Garau, Principal Economist at the Office of Health Economics, for her review of this material.

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