MCDA in ASIA and JAPANESE HTA: MULTIPLE steps for Multiple-CDA

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ISPOR GLOBAL GROUPS: USE OF MCDA IN HTA, COVERAGE AND REIMBURSEMENT DECISION-MAKING: EXPERIENCE AND INSIGHTS FROM EMEA, LATIN AMERICA AND ASIA-PACIFIC

MCDA example in Thailand and Indonesia

REVIEW　Open Access

Incorporatir
and potenti
income sett

Kevin Marsh[1*], Praveen Thc

From Priority Setting in G

Abstract

Background: Multicriteria
health technology assessme
lenges facing the use of MC
highlight potential solution

Methodological challenge
the socio-technical design c
els are understood and appl
with these approaches are u

Practical challenges: Exist
come the practical challeng
settings and from expert op
process; and ensuring that t

Conclusion: MCDA has the
important that the lessons f

Keywords: Multicriteria de

Table 1 Case study—Thailand [16, 23]

Thailand is a frontrunner in the use of MCDA to prioritise health interventions. Since 2009, the prioritisation of non-pharmaceutical products available under universal health coverage (UHC) has involved the following steps: (1) nomination of topics/interventions for assessment by seven groups of stakeholders, comprising policy makers, health professionals, civil society, academics, industries, general population and patient groups; (2) scoring of options against the selection criteria by the research team; (3) selection of topics/interventions for assessment by consultation panels of stakeholders representing the Thai health insurance system, policy makers and academics; (4) technology assessment of interventions by the research team; and (5) discussion of the assessment results and decision making by the SCBP. Final approval is sought from the subcommittee on health financing
The MCDA is embedded in a decision making institution, being initiated by the National Health Security Office (NHSO), the institute managing UHC. For instance, in 2009 the MCDA assessed 17 possible services for inclusion in UHC. The research team presented the results of the assessment of nine of these interventions to the SCBP, who recommended that three of these be considered for adoption under UHC

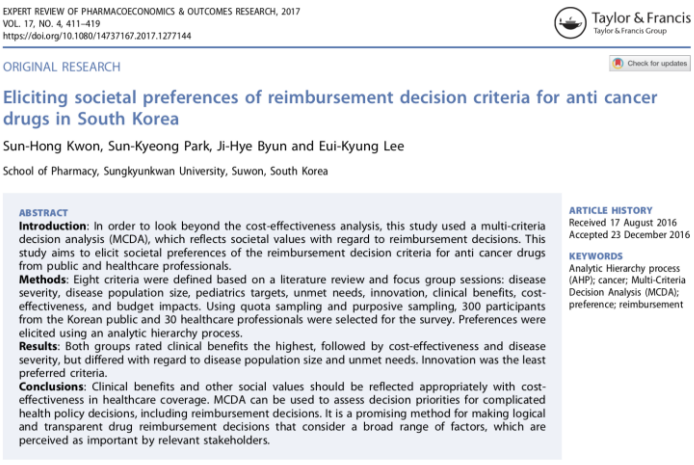
Table 2 Case study—Indonesia [29]

An MCDA was undertaken to inform the 5-year HIV/AIDs strategic plan in West Java province, Indonesia. Criteria and weights were agreed upon by a consultation panel, comprising 23 representatives from different government departments, community organisations, programme managers and researchers. A larger group of stakeholders proposed 50 interventions, which were scored by researchers. The consultation panel reflected on the results of the MCDA, incorporated other ethical considerations to prioritise investments and considered implementation, including who should fund and implement the prioritised interventions
The methods and results of the MCDA were included in West Java's 5-year strategic document for HIV/AIDS control, which was approved by the gover-nor in 2014. However, this was only a guidance document, and the extent to which it determines resource allocation is uncertain

How the MCDA system work?

- MCDA system is used for prioritization around the “queue” for assessment, NOT to prioritization within the assessment process
- Each step of MCDA need to carefully be considered
  - Choose the criteria
  - Give weight for each CRITERIA
  - Give score for particular INTERVENTION
  - Ranking

Research level MCDA implementation to South Korea (Kwon SH et al, 2017)



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ORIGINAL RESEARCH

Check for updates

Eliciting societal preferences of reimbursement decision criteria for anti cancer drugs in South Korea

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ABSTRACT

Introduction: In order to look beyond the cost-effectiveness analysis, this study used a multi-criteria decision analysis (MCDA), which reflects societal values with regard to reimbursement decisions. This study aims to elicit societal preferences of the reimbursement decision criteria for anti cancer drugs from public and healthcare professionals.

Methods: Eight criteria were defined based on a literature review and focus group sessions: disease severity, disease population size, pediatrics targets, unmet needs, innovation, clinical benefits, cost-effectiveness, and budget impacts. Using quota sampling and purposive sampling, 300 participants from the Korean public and 30 healthcare professionals were selected for the survey. Preferences were elicited using an analytic hierarchy process.

Results: Both groups rated clinical benefits the highest, followed by cost-effectiveness and disease severity, but differed with regard to disease population size and unmet needs. Innovation was the least preferred criteria.

Conclusions: Clinical benefits and other social values should be reflected appropriately with cost-effectiveness in healthcare coverage. MCDA can be used to assess decision priorities for complicated health policy decisions, including reimbursement decisions. It is a promising method for making logical and transparent drug reimbursement decisions that consider a broad range of factors, which are perceived as important by relevant stakeholders.

ARTICLE HISTORY
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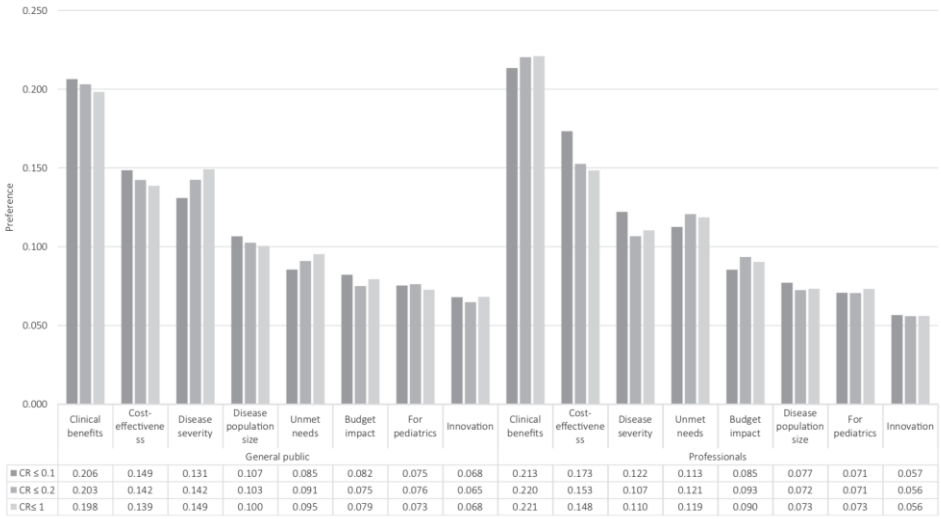
KEYWORDS
Analytic Hierarchy process (AHP); cancer; Multi-Criteria Decision Analysis (MCDA); preference; reimbursement

Selected criteria
Disease severity
Disease population size
Therapeutic target for paediatrics
Unmet needs
Innovation
Clinical benefit
Cost-effectiveness
Budget Impact

Research level MCDA implementation to South Korea (Kwon SH et al. 2017, Cont)

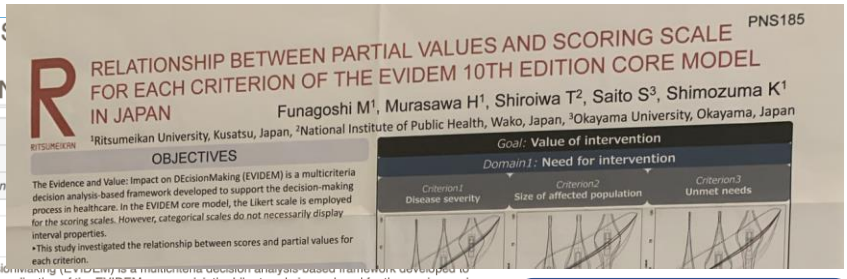


	Clinical benefits	Cost-effectiveness	Disease severity	Disease population size	Unmet needs	Budget impact	For pediatrics	Innovation	Clinical benefits	Cost-effectiveness	Disease severity	Unmet needs	Budget impact	Disease population size	For pediatrics	Innovation
	General public								Professionals							
CR ≤ 0.1	0.206	0.149	0.131	0.107	0.085	0.082	0.075	0.068	0.213	0.173	0.122	0.113	0.085	0.077	0.071	0.057
CR ≤ 0.2	0.203	0.142	0.142	0.103	0.091	0.075	0.076	0.065	0.220	0.153	0.107	0.121	0.093	0.072	0.071	0.056
CRs 1	0.198	0.139	0.149	0.100	0.095	0.079	0.073	0.068	0.221	0.148	0.110	0.119	0.090	0.073	0.073	0.056

Pilot study in Japan seeking the "ROOM" for EVIDEM-approach (Funagoshi et al, this conference (Monday poster session))

PNS185 - RELATIONS
SCORING SCALE FOR
EDITION

Monday, November 4, 2019
10:30 - 14:00
Bella Center - Hall C2-4 (groun



Abstract

OBJECTIVES: The Evidence and Value: Impact on DEcisionMaking (EVIDEM) is a multicriteria decision analysis-based framework developed to support the decision-making process in healthcare. In an application of the EVIDEM core model, the Likert scale is employed for the scoring scales. However, categorical scales do not necessarily display interval properties, such that equal increments on a scoring scale represent equal increments of value. This study investigated the relationship between scores and partial values for each criterion.

METHODS: We elicited partial value functions for the 13 criteria of the EVIDEM through direct value rating by the public and by healthcare professionals. In this study, the scoring scales was based on a 5-point Likert scale (6- or 11-point scales in the EVIDEM) with anchors at the two ends, where score 5 (e.g., "very severe" for the criterion "disease severity") represented the highest level of fulfillment of the criterion and 1 (e.g., "not severe") the lowest. Respondents were asked to rate scores 2-4 for the 13 criteria on a scale from 0 to 100. Scores 1 and 5 were predefined as 0 and 100.

RESULTS: The survey was completed by 1,141 members of the public and 1,066 healthcare professionals. Only 2.1%-2.8% of the public and 1.6%-2.7% of healthcare professionals considered that scores have interval properties. The means of differences by each criterion between scores 1 and 2 were the largest (range of the means: 36.2-40.0 for the public vs. 34.5-41.5 for professionals; between 2 and 3, 15.4-17.0 vs. 15.7-19.3; between 3 and 4, 16.4-17.9 vs. 16.8-19.9; between 4 and 5, 27.2-30.0 vs. 25.5-28.9).

CONCLUSIONS: Most partial value functions displayed non-linearities and were similar in shape, indicating that the scoring scale of the EVIDEM should not automatically be used as interval scales. Scores need to be adjusted by their partial value functions before calculating the aggregate score.

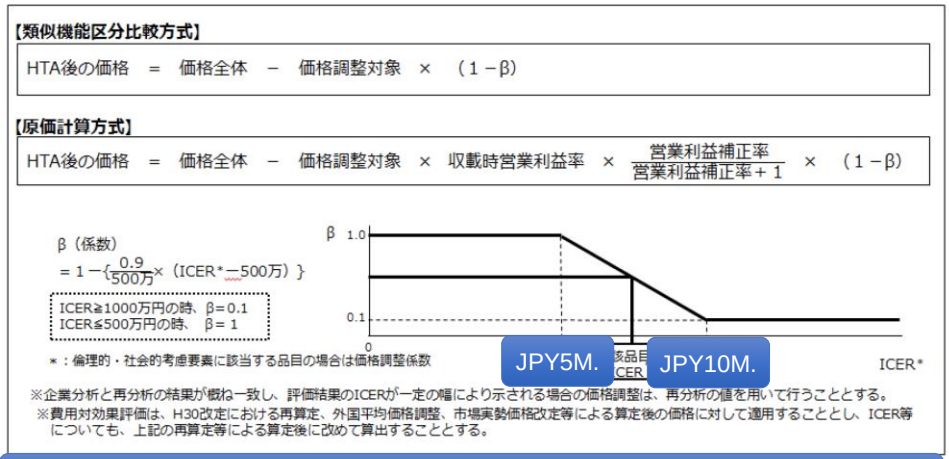
NON-LINEAR value function were observed for each criterion

Characteristics of JP-HTA (Pilot: 2016.4 - 2019.3　Entire: 2019-)

1	Eligible products are chosen from drugs ALREADY REIMBURSED (5-10 product per Year, including Sovaldi, Harvoni, Opdivo, Kymriah)
2	Results are used for PRICE REVISION, not for COVERAGE DECISION
3	ICER values are compared with the threshold value to determine if it is cost-effective (UK NICE – like system)
4	Things other than Cost-Effecitiveness will be taken into account at the appraisal process (UK NICE – like system)
5	Drugs with multiple indications are evaluated via weighted-mean of revised price for eligible subgroup

Japan-specific way how to reflect results into price revision rate (provisional implementation, slope-like)

（図4）価格調整方法



The ICER value is directly reflected to the price revision rate

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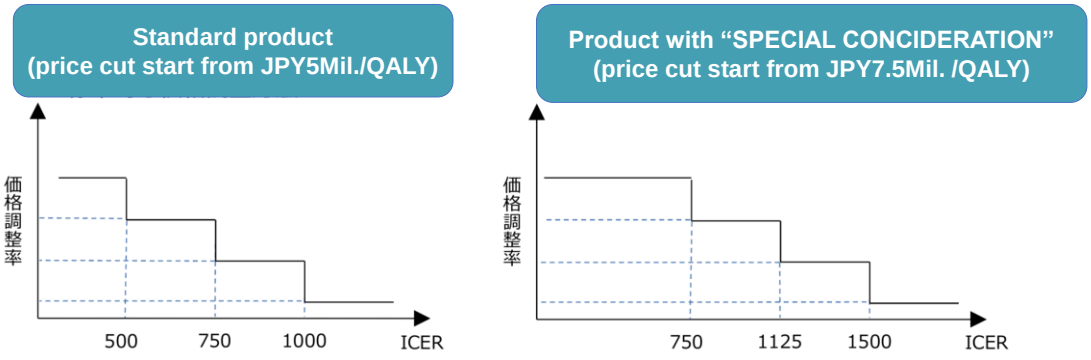
Japan-specific way how to reflect results into price revision rate (Entire implementation, step-like)



Examples should be categorized to "SPECIAL" at the appraisal process	
Anti cancer drug	Drugs for rare diseases
Drugs for pediatric diseases	

The ICER value is Still directly reflected to the price revision rate

No additional factor needs to be considered in the appraisal process???

- What is the key role of the appraisal?

Viewpoint	Role	Importance
Practical	Simply minimize price reduction rate	Less important Additional factor should only be considered if HTA is used to coverage decision
Conceptual	To compensate the limitation of CEA/ICER	More important Other factors should be seriously considered, as no flexibility is allowed for CEA/ICER part

"Extra value" other than CEA/ICER is difficult to be incorporated to one-dimensional scale (so-called MCDA)

Lack of opportunity after the assessment process (After initial HE evaluation of both side)

- Few opportunity and short time period for SUFFICIENT discussion between manufactures and governments
- Lack of engagement of the SATELLITE stakeholders, while everyone argue that the importance of it

Room for MCDA??

Whole component could be incorporated to ICER Value?

- Given that the ICER value is connected to price revision, it should be…?
- Less opportunity for issues other than cost-effectiveness could be taken into account

MCDA looks attractive from Manufactures side???

”Classification“ should be needed for various candidate for MCDA

- **If you chase two rabbits, you will not catch either one**

QUANTIFIABLE?
QUALITATIVELY MEASURABLE?
UNMEASURABLE, ONLY CONCEPTUALLY

How can we make “sufficient” opportunity for fruitful discussion?

- To facilitate more smooth introduction into actual practice

Internal concept	MUST be modified
External appearance	More similar (to current system), more better

CHRONOLOGY of the perception of NHI system

-2015	**PAX JAPANA (pre-opdivo era)**	**ALL drug should be covered with same condition, as Japan has UHC**
2015-19	**POST-opdivo era**	**Some system should be implemented ONLY for products with huge budget impact, to maintain our system**
2019-	**POST-Kymriah era**	**Products which are ”ATTRACTIVE” from financial perspective should be assessed Function should (would) be expanded to COVERAGE DESICION**
2020-	**POST-Zolgensma, Aducanumab era**	**???**

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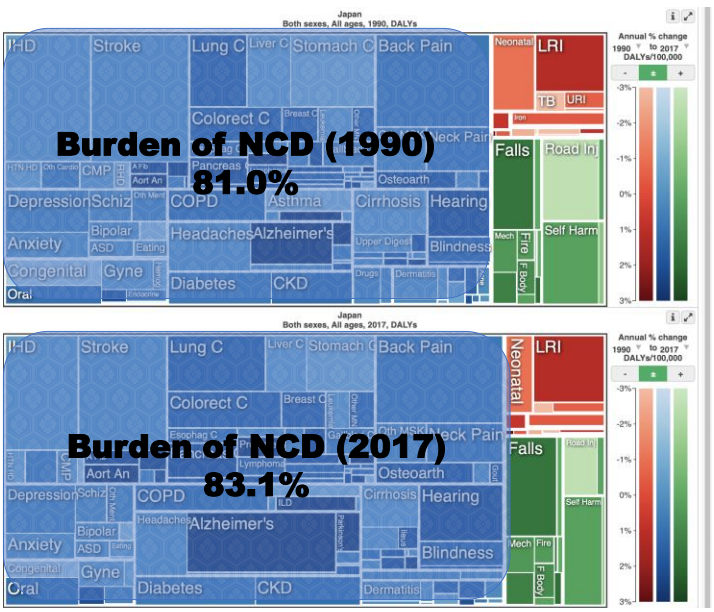
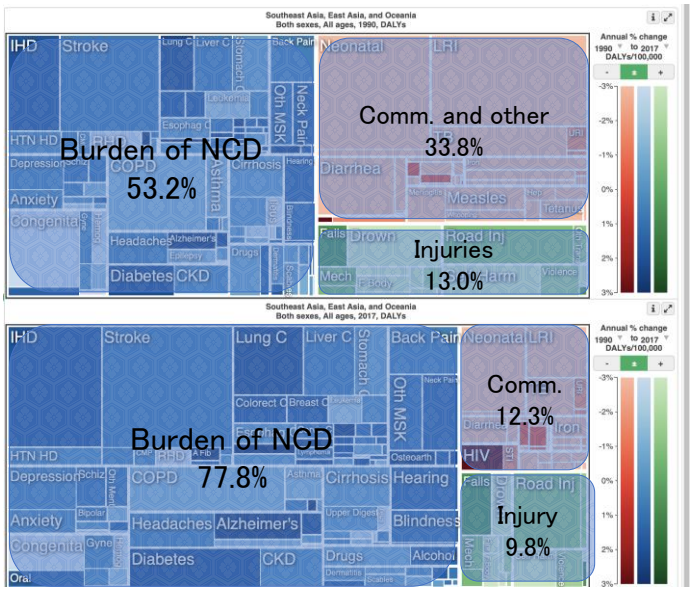
Disease burdens (DALYs, 1990 and 2017)



DALY in Southeast Asia, East Asia and Oceania (1990 vs 2017)



MULTIPLE step introduction for MCDA

- Crucial goal: opening (securing) doors for various factors other than simple cost-effectiveness

- MCDA is now in the “caltivation” process
  - Easily be criticised???
- ”LOOKS ideal, not yet implement” vs. “So many LIMITATION but already exist”