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VALIDATING A MULTI-CRITERIA DECISION ANALYSIS (MCDA) FRAMEWORK FOR HEALTH CARE DECISION MAKING

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OBJECTIVES: When evaluating healthcare interventions, decision-makers are increasingly asked to consider multiple criteria to support their decision. The MCDA-based EVIDEM framework was developed to support this process. It includes a simple weight elicitation technique, designed to be easily applicable by a broad range of users. The objective of this study was to compare the EVIDEM technique with more traditional techniques.

METHODS: An online questionnaire was developed comparing the EVIDEM technique with four alternative techniques including AHP, best/worst scaling, ranking and point-allocation. A convenience sample of 60 Dutch and Canadian students were asked to fill out the questionnaires as if they were sitting in an advisory committee for reimbursement/prioritization of healthcare interventions. They were asked to provide weights for 14 criteria using two techniques, and to provide feedback on ease of use and clarity of concepts of the different techniques.

RESULTS: Results based on the first 30 responses show that EVIDEM is easy to understand and takes little time to complete, three minutes on average. Criteria weights derived using the EVIDEM technique and best/worst scaling are divergent. Comparing the rank order of criteria respondents gave using these two techniques; there is more resemblance in rank order of criteria weighted with the EVIDEM technique. Compared to AHP/ranking/point-allocation, EVIDEM takes less time to complete but is only preferred by 33% of decision-makers. AHP/ranking and point allocation were often described as clearer and more reflective of the respondents' opinion.

CONCLUSIONS: The simple technique is proposed as a starting point for users wishing to adapt the EVIDEM framework to their own context. Other techniques may be preferred and their impact on the MCDA value estimate generated by applying the framework is being explored. This project is part of a large collaborative work that includes developing and validating this framework to facilitate sound and efficient MCDA-applications.