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Recommendations of the Second Panel on Cost Effectiveness in Health and Medicine: A Reference, Not a Rule Book

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INTRODUCTION

Cost-effectiveness analysis (CEA), as noted by the Second Panel on Cost Effectiveness in Health and Medicine (herein, the Second Panel), "provides a framework for comparing the relative value of different interventions, along with information that can help decision makers sort through alternatives and decide which ones best serve their programmatic and financial needs."[1] The CEA, as well as other methods of economic evaluation, such as budgetary impact analysis and cost–benefit analysis, can inform health policy decisions. In 1996, the first Panel on Cost Effectiveness in Health and Medicine (herein, the First Panel) issued recommendations intended to improve the quality and comparability of CEA studies.[2]

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The Second Panel has provided updated recommendations on the conduct, documentation, and reporting of CEAs with the same general intent.[3]

Notably, the Second Panel recommends inclusion of an impact inventory, which is a checklist of health and non-health outcomes and costs to be considered in CEAs. This checklist is a useful reference for considering various methodologic elements and inputs when conducting a CEA. However, the authors are concerned that the Second Panel's recommendations might be interpreted by journals as prescriptive requirements for publishing CEAs. In particular, the long list of items that should be included in CEAs,[3] according to the Second Panel, could easily be misread as itemized rules. This concern has been informally recognized in presentations in which Second Panel members have stated that they did not intend the recommendations to be prescriptive. It would be helpful if the Second Panel were to clarify, in print, that these recommendations are intended as a reference and not as a rule book.

Two examples of the Second Panel's recommendations for which exceptions from the recommendations may be warranted are highlighted below.

RECOMMENDATIONS

The Second Panel States That Reference Case Analyses Should Aggregate Health Consequences Into a Single Measure Using Quality-Adjusted Life Years

Although the quality-adjusted life years (QALY) measure is useful for combining fatal and nonfatal health outcomes, theoretic and practical problems with the QALY measure have been documented.[1,4] Accordingly, the use of QALYs should not be viewed as mandatory. Rather, health outcomes for public health analyses should be selected as a function of the question to be addressed and the intended primary audience. In assessing the cost effectiveness of health promotion interventions, many CEAs use condition-specific health outcomes, such as symptom-free days gained or cases averted. These outcomes provide easily interpretable information to program directors and other decision makers. For example, an HIV prevention program director who must allocate resources across different interventions may find estimates of the cost per case of HIV infection averted a useful outcome measure. As another example, health promotion strategies for the management of asthma are typically compared based on cost per symptom-free day.[5] Finally, dominant (i.e., cost saving and health enhancing) preventive strategies, such as folic acid fortification or routine childhood immunizations, do not require calculation of a cost-effectiveness ratio because the magnitude of a negative cost-effectiveness ratio is not meaningful.[4,6,7] Evaluations of such strategies should still report health outcomes, but they do not necessarily need to use QALYs; condition-specific health measures may be more sensitive measures of intervention effectiveness.

The Second Panel Recommends That Every Cost-Effectiveness Analysis Include Reference Case Analyses That Report Costs and Effects From a Healthcare Sector and a Societal Perspective

The Second Panel recommends that CEAs use both the healthcare sector and societal perspectives. The health-care sector perspective includes all healthcare spending by all payers, whether public, private, or individual.[1] The societal perspective includes all costs and health benefits regardless of who incurs the costs and to whom the benefits accrue.[1] The Second Panel's recommended scope of the societal perspective, however, goes well beyond that defined by the First Panel, which focused on including family spillover effects, such as caregiving time costs. The societal perspective in the Second Panel reflects a welfare economics principle that costs and benefits beyond the healthcare sector should be considered, including criminal justice and environmental impacts.[8] However, based on past publications, there is likely to be little consistency among societal perspective CEAs in the selection of which specific non-healthcare sector costs to include or how they are assessed.[8] Consequently, it is unclear that promoting a societal perspective reference case will improve comparability of CEA estimates. The societal perspective is important, but for it to be useful as a reference case for CEAs, further work is needed to develop consistent methods and standard measures of costs and outcomes, including future costs and productivity costs.

The choice of study perspective is best based on the research question and the target audience of interest. Including both healthcare sector and societal perspectives in all CEAs may not be relevant to target audiences and, therefore, an inefficient use of limited research resources (e.g., time and effort). Given differences in intended audiences and the underlying question of interest, flexibility in determining which perspective to use and which costs and benefits to include is essential. In addition, other perspectives may be more informative in specific contexts, such as the perspective of a particular payer. For example, demonstration that primary care–based asthma education could reduce costs for a state Medicaid program helped to inform the decision to provide reimbursement for that service by Medicaid plans in that state.[9] Researchers ideally will ascertain what perspective is of most use to decision makers and then ensure that key costs and benefits needed to address the study's question and desired perspective are included.

CONCLUSIONS

Although the authors welcome the framework provided by the Second Panel, it is not practical to adopt a single set of criteria for public health CEAs; one size does not fit all. The key message of this commentary is that the recommendations of the Second Panel should not be interpreted as prescriptive requirements for publishing CEAs. However, the objective of this commentary is to emphasize the original intent of the recommendations—to promote enhanced transparency and the adoption of more rigorous methodologies, where appropriate and supported by data. For brevity, only two examples have been discussed for which exceptions from the Second Panel's recommendations may be warranted. However, many other recommendations of the Second Panel also deserve further attention and debate. Analysts are encouraged to choose the most relevant methods at their disposal to answer the research question of interest.

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