Economic Evaluation Studies: Checklist

SOURCE: DRUMMOND, ET AL., *METHODS FOR THE ECONOMIC EVALUATION OF HEALTH CARE PROGRAMMES*, 4TH EDITION, 2015

Was a well-defined question posed in answerable form?

1. Did the study examine both costs and effects of the service(s) or program(s) over an appropriate time horizon?
2. Did the study involve a comparison of alternatives?
3. Was a perspective for the analysis stated and was the study placed in any particular decision-making context?
4. Were the patient population and any relevant subgroups adequately defined?

Source: Drummond, et al., *Methods for the Economic Evaluation of Health Care Programmes*. , 4th edition, 2015

Was a comprehensive description of the competing alternatives given?

1. Were any relevant alternatives omitted?
2. Was (should) a "do nothing" alternative (be) considered?
3. Were relevant alternatives identified for the patient subgroups?

Source: Drummond, et al., *Methods for the Economic Evaluation of Health Care Programmes*. , 4th edition, 2015

Was the effectiveness of the programmes or services established?

1. Was this done through a randomized controlled clinical trial? If so, did the trial protocol reflect what would happen in regular practice?

2. Were effectiveness data collected and summarized through a systematic overview of clinical studies? If so, were the search strategy and rules for inclusion or exclusion outlined?

3. Were observational data or assumptions used to establish effectiveness? If so, were any potential biases recognized?

Source: Drummond, et al., *Methods for the Economic Evaluation of Health Care Programmes*. , 4th edition, 2015

Were all the important and relevant costs and consequences for each alternative identified?

1. Was the range wide enough for the research question at hand?

2. Did it cover all relevant perspectives? (Possible perspectives include those of patients and third-party payers; other perspectives may also be relevant depending on the particular analysis.)

3. Were capital costs, as well as operating costs, included?

Source: Drummond, et al., *Methods for the Economic Evaluation of Health Care Programmes*. , 4th edition, 2015

Were costs and consequences measured accurately in appropriate physical units prior to valuation ?

1. Were the sources of resource utilization described and justified?
2. Were any of the identified items omitted from measurement? If so, does this mean that they carried no weight in the subsequent analysis?
3. Were there any special circumstances (e.g. joint use of resources) that made measurement difficult? Were these circumstances handled appropriately?

Source: Drummond, et al., *Methods for the Economic Evaluation of Health Care Programmes*. , 4th edition, 2015

Were costs and consequences valued credibly?

1. Were the sources of all values clearly identified? (Possible sources include market values, patient or client preferences and views, policy makers' views, and health professionals' judgements.)

2. Were market values employed for changes involving resources gained or depleted?

Source: Drummond, et al., *Methods for the Economic Evaluation of Health Care Programmes*. , 4th edition, 2015

Were costs and consequences valued credibly? (cont.)

3. Where market values were absent (e.g. volunteer labor), or market values did not reflect actual values (e.g. clinic space donated at a reduced rate), were adjustments made to approximate market values?

4. Was the evaluation of consequences appropriate for the question posed (i.e. has the appropriate type or types of analysis—cost-effectiveness, cost-benefit—been selected)?

Source: Drummond, et al., *Methods for the Economic Evaluation of Health Care Programmes*. , 4th edition, 2015

Were costs and consequences adjusted for differential timing?

1. Were costs and consequences that occur in the future 'discounted' to their present values?
2. Was any justification given for the discount rates used?

Was an incremental analysis of costs and consequences of alternatives performed?

Were the additional (incremental) costs generated by one alternative over another compared to the additional effects, benefits, or utilities generated?

Source: Drummond, et al., *Methods for the Economic Evaluation of Health Care Programmes*. , 4th edition, 2015

Was uncertainty in the estimates of costs and consequences adequately characterized?

1. If patient-level data on costs or consequences were available, were appropriate statistical analyses performed?
2. If a sensitivity analysis was employed, was justification provided for the forms of sensitivity analysis employed and the ranges or distributions of values (for key study parameters)?
3. Were the conclusions of the study sensitive to the uncertainty in the results, as quantified by the statistical and/or sensitivity analysis?
4. Was heterogeneity in the patient population recognized, for example by presenting study results for relevant subgroups?

Source: Drummond, et al., *Methods for the Economic Evaluation of Health Care Programmes*. , 4th edition, 2015

Did the presentation and discussion of study results include all issues of concern to users?

1. Were the conclusions of the analysis based on some overall index or ratio of costs to consequences (e.g. cost-effectiveness ratio)? If so, was the index interpreted intelligently or in a mechanistic fashion?
2. Were the results compared with those of others who have investigated the same question? If so, were allowanced made for potential differences in study methodology?
3. Did the study discuss the generalizability of the results to other settings and patient/client groups?

Source: Drummond, et al., *Methods for the Economic Evaluation of Health Care Programmes*. , 4th edition, 2015

Did the presentation and discussion of study results include all issues of concern to users? (cont.)

4. Did the study allude to, or take account of, other important factors in the choice or decision under consideration (e.g. distribution of costs and consequences, or relevant ethical issues)?
5. Did the study discuss issues of implementation, such as the feasibility of adopting the 'preferred' programme given existing financial or other constraints, and whether any freed resources could be redeployed to other worthwhile programmes?
6. Were the implications of uncertainty for decision-making, including the need for future research, explored?

Source: Drummond, et al., *Methods for the Economic Evaluation of Health Care Programmes*. , 4th edition, 2015

Developing guidelines for the presentation of results: specifying a 'reference case'

1. The societal perspective should be adopted.
2. Effectiveness estimates should incorporate benefits and harms.
3. Mortality and morbidity consequences should be combined using QALYs.
4. Effectiveness estimates from best-designed and least-biased sources should be used.
5. Costs should include health care services, patient and caregiver time, and costs of non-health impacts.

Source: Gold, M.R, et al. *Cost-effectiveness in health and medicine*, Oxford University Press, New York, USA

Developing guidelines for the presentation of results: specifying a 'reference case' (cont.)

6. Comparison should be made with existing practice and (if necessary) a viable low-cost alternative.
7. Discounting of costs and health outcomes should be undertaken at a real rate of 3% per annum (plus 5% for comparison for existing studies).
8. One-way and multiway sensitivity analysis (for important parameters) should be undertaken.
9. Comparison of the ICER should be made with those for other relevant interventions.

Source: Gold, M.R, et al. *Cost-effectiveness in health and medicine*, Oxford University Press, New York, USA