Reviewer's report

Title: Burden of disease due to cancer in Spain

Version: 3 Date: 17 October 2008

Reviewer: Duncan Mortimer

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MAJOR ESSENTIAL REVISIONS:

1. Burden of Disease: To my mind, the authors' claims for the role of BoD estimates in priority setting and policy making are still way too strong. The authors argue that “DALYs, as a synthetic indicator, gives information about the potential benefit expected from an effective intervention, in terms of both, mortality and disability” (p13). I would maintain that knowing the capacity to benefit by disease-area tells us nothing about the extent to which capacity to benefit in each disease area can be realized or about which interventions would provide the best means of doing so.

2. Policy relevance: The authors have added text at p12 to the effect that year 2000 BoD estimates will provide a baseline for tracking changes in epidemiology and monitoring progress over time. This is all good in theory but, unless data is being collected that will permit the periodic recalculation of BoD, the tracking/monitoring provides a fairly weak motivation for running BoD calculations.

3. Applicability of disability weights to the Spanish population: Changes made are adequate.

4. Modeling: Regarding methods used in predicting duration, the cited reference provides sufficient background. Regarding methods used in predicting incidence, the cited references are less informative. Reference 21 is a general methods paper describing Bayesian inference using Gibbs sampling. Reference 9 appears to be in Spanish and was not accessible via the link provided at the time of this review. That said, I agree that additional detail regarding methods may detract from the main message of the paper.

5. Sampling error and parameter uncertainty: The sensitivity analysis (with versus without age-weights) provides a misleading picture of the level of uncertainty associated with the BoD estimates presented in the paper. Each sample parameter describing disease-progression is associated with sampling error (eg. %treated in the duration model). Failing to conduct sensitivity analysis to take account of this sampling error effectively assumes that are able to estimate population parameters describing disease-progression with certainty. For parameters describing disease-progression that have been based on assumption or expert-opinion, it seems likely that these sources of data are prone to potentially substantial error. Uncertainty might also arise with respect to
social values embedded in BoD calculations (including disability weights, discount rates and age-weights). To conduct sensitivity analysis on just one of these variables (ie, age-weights) effectively assumes that we have perfect knowledge of other social values. Note, for example, that the source of disability weights (Dutch Disability Weights) might not provide a good indication of social values for the study context. I do note that additional text has been added to the discussion but I am not convinced that this additional text communicates the full extent of uncertainty associated with the BoD estimates reported in the paper.

MINOR ESSENTIAL REVISIONS:

5. Assumptions: Changes made are adequate.

DISCRETIONARY REVISIONS:

6. Text: The manuscript contains a number of typos and grammatical errors. Mostly these errors are just distracting and it is still possible to ascertain the authors’ meaning. For example:
   “…which makes easier to compare…” (p2).
   “…cancer sites ordered by its associated BoD…” (p8).
   “There are published weights to be applied to BoD estimates or country-specific disability weights can be obtained” (p12).
   “One study shown…” (p12).
   “It is acknowledgeable that the…” (p12).

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.