Reviewer's report

Title: Smoking-attributable morbidity and acute care hospital costs in Canada 2002

Version: 1 Date: 9 July 2007

Reviewer: LM HO

Reviewer's report:

General

This paper provides useful information on acute care hospital costs in Canada. The cost estimation depends on how SAF is determined and calculated. So SAF should carefully be determined.

-----------------------------------------------------------------------------

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

P3. The aim of the present study (..to estimate the proportion of acute care hospital diagnoses and hospital days attributable to…) seems not too appropriate as the title is "Smoking-attributable morbidity and acute care hospital costs in Canada 2002"

P4. Pls explain why English et al was used when a more current meta-analysis did not exist. Does it mean that English et al provide the most accurate and reliable ones?

P4. When a meta-analysis was published later than 1995, why there was usually *only* one that presented data on smoking dose?

P4. If there was more than one, why choose the most comprehensive based on age and smoking dose categories? The most comprehensive one does not necessarily imply a more accurate risk estimate. The choice should also be based on the quality of the published report.

P5. The passive smoking-attributable morbidity was derived from lung cancer and IHD to the population of Canadians who have never smoked, but are exposed to ETS. However it is reported that passive smoking affects both never smokers and current smokers (eg Environmental tobacco smoke and respiratory ill health in current smokers, published in Tobacco Control). The figures will considerably be underestimated.

P5. CCHS sample was weighted to ensure comparability with Canadian population. Does it mean that CCHS is not comparable to Canadian population. For example, if smokers were less likely to cooperate and be included in the CCHS study, the smoking prevalence would be underestimated. If so, is there
any selection bias in smoking prevalence?

P6. As the national level data were actually composed of only 7 provinces and 2 territories, pls explain how data for whole Canada were estimated using the total population.

P6. The title of the present title (Smoking-attributable morbidity and acute care hospital costs in Canada 2002) is confusing. Smoking-attributable morbidity should not just be restricted to those recorded on the Hospital Morbidity Database. How about these attending GP? In some countries, patients will see a GP, rather than go to a hospital for some health problems. The smoking attributable estimates based on GP data can be very different from those based on hospital data.

P6. It is said that there is still overlap in the MRD database, and these were scaled down by the factor of overall hospital days. Why there is still overlap, and how many overlapped records?

P10. The decline in mortality due to heart disease is also observed in many countries. This phenomenon is not specific to Canada.

P11. It is mentioned that the same approach was utilized in calculating the smoking-attributable fractions in both 1992 and 2002, and different inputs were used. It may partly explain why there is difference in cost estimations. For comparison between 1992 and 2002, it is also useful to see the SAF used previously in the 1992 article. Suggest to conduct a sensitivity analysis applying the same set of SAF to 1992 and 2002 to determine whether the difference is robust. It is also informative to include some contextual information, eg smoking policy in Canada, to assist especially international readers for a better understanding of the possible cost decline from 1992 to 2002.

------------------------------------------------------------------------------------------------------------------------

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

------------------------------------------------------------------------------------------------------------------------

Discretionary Revisions (which the author can choose to ignore)

------------------------------------------------------------------------------------------------------------------------

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I declare that I have no competing interests