Reviewer's report

Title: Diabetes: Cost of Illness in Norway

Version: 4 Date: 21 May 2010

Reviewer: Ken Redekop

Reviewer's report:

I thank the authors for their efforts to revise their manuscript and response to the reviewers. My comments below use the same headings found in my initial review and the response to the reviewers. These comments are intended to help to improve the manuscript and not so much to critique it.

MINOR ESSENTIAL REVISIONS

1) Inpatient hospital costs

The authors have provided more information about how hospital costs were calculated.

Please add the answer found in the response to the reviewers to the paper.

2) Comparisons with other COI studies

I actually think that comparisons can be made in different ways: one can compare results in the context of differences in diabetes care policies, but one would have to keep in mind any differences in methods (e.g., prevalence-based vs incidence-based approaches, human capital vs. friction method).

One can also just compare methodologies. For example, I suggest that the authors take a look at what Bolin et al. (Diabetes, healthcare cost and loss of productivity in Sweden 1987 and 2005--a register-based approach. Diabet Med. 2009 Sep;26(9):928-34.) did for two different reasons. Firstly, Bolin et al discuss changes in total costs in Sweden, which is related to the comments by the authors about temporal trends in costs. Secondly, Bolin et al used attributable risks to estimate the contribution of diabetes to the costs of diabetes-related disorders/complications (with multiple causes) such as cardiovascular disease. This approach should result in an estimate of COI that is between the COI based only on diabetes and the COI based on diabetes and diabetes complications. I don’t suggest new analyses, but rather a reference to this approach and study, which can go beyond what is stated on page 12 (“…many causal factors and no reliable data on the fraction…”).

Note that Bolin et al. ignored certain cost components such as primary care costs and short-term illness costs.

3) Future research (see initial review and response to the reviewers)

Please add the comments found in the response to the reviewers to the paper.

Just to clarify what I meant in my initial review, I was interested in hearing what
kinds of studies the authors think should be performed next, both in Norway and in general (e.g., methodological studies). I would like to see more reflection about new studies which can help to improve the lives of people with diabetes or ensure that good diabetes care is provided as efficiently as possible. I see that one of the authors is medical advisor to the Norwegian Diabetes Association. What kinds of questions raised by this study’s results can – or should – be addressed to improve the health of diabetes patients in Norway?

4) Typographical/grammatical issues
By chance, I found upon another spot where “productions losses” is found (page 12).

DISCRETIONARY REVISIONS
1) Abstract: I would suggest adding a 1-2 sentences in methods section of the abstract which describe the calculation methods used to estimate total costs. For example, the abstract makes no mention of the prevalence-based method.

**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