Reviewer’s report

Title: Impact of diabetes mellitus on life expectancy and health-adjusted life expectancy in Canada

Version: 1 Date: 23 August 2011

Reviewer: Lawrence Barker

Reviewer’s report:

Major compulsory revisions

The abstract is somewhat confusing in talking about the effects of diabetes at birth. Obviously, diabetes does not occur at birth. The manuscript explains what is meant by this term -- however, the reader doesn't get an explanation until he or she reads the manuscript. The authors need to either not use this term in the abstract or explain it.

The assumed value of 0.999 for those under 9 years is probably optimistic. Children have birth defects. Children suffer injuries. Children can suffer from infectious diseases. A sensitivity analysis is needed to determine how much of an impact this assumption had.

Are there theoretical or empirical reasons for assuming normality for LE and HALE? If so, tell us what they are. If not, consider a sensitivity analysis.

The authors need to make clearer that they are talking about a hypothetical world in which diabetes does not exist. This is important because changes in lifestyle could make type 2 diabetes much less common than it is now. However, eliminating type 1 diabetes is a stretch, since we do not know how to prevent it.

The authors need to note that they are talking only about diagnosed diabetes. People with undiagnosed diabetes also have their health impacted by the disease. Thus, this manuscript presents estimates that are biased toward the null.

Minor essential revisions

On page 10, the >1 was supposed to be < 1.

On page 13, the word it's means 'it is'. The possessive of it is its. This runs contrary to the way possessive are usually formed, so this is a very common error, but it is the way things are done.

Discretionary revisions

Indicate what percent of the population was aged 85+ years. I suspect this was small enough so that the Gompertz curve assumption had little impact. This would be simpler than a true sensitivity analysis.

Level of interest: An article of importance in its field

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.