Reviewer's report

Title: The reduction of tuberculosis risks by smoking cessation

Version: 2 Date: 14 April 2010

Reviewer: Chen-Yuan Chiang

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Major Compulsory Revisions

Table 1, Education, middle school or below had a higher proportion (1.49% vs 1.15%) of self-reported TB history, but a lower OR – is this correct?

Page 9, “The group that reported smoking the least, those smoking less than half a pack a day (HR=2.60), those smoking less than 10 years (HR=3.77), or those smoking less than 15 packs per year (HR=2.89) showed substantially increased TB mortality risks.” As most papers on smoking and TB reported a dose-response relationship on amount of smoking and TB, a negative dose-response relationship reported by this study is very strange and difficult to understand. As the reviewer indicated previously, daily consumption, years of smoking and pack-year among current smokers may not be relevant among ex-smokers who had stop smoking before enrollment. Authors should restrict the analysis of dose-response relationship among current smokers.

Page 13, the paragraph beginning with one surprising finding .... needs revision. The reviewer repeats the comment that the proportion of ex-smokers who reported a history of TB was higher than smoker, which was possible that they quitted smoking because of tuberculosis. Authors assumed that smokers had a higher risk of tuberculosis but reported less, therefore, they were less aware of tuberculosis. This assumption may not hold. If smokers had tuberculosis but were less aware of tuberculosis, they should be diagnosed with tuberculosis at enrollment. Shouldn’t they? Authors should recognize that those who had tuberculosis have a higher risk of new episode of tuberculosis than those who had not. A higher proportion of ex-smoker reported a history of tuberculosis prior to enrollment in the program but had a lower TB mortality than smokers after enrollment, which provides evidence that quitting reduce the risk of subsequent development of tuberculosis.

Minor Essential Revisions

Page 6, Self-reported TB history was defined as being aware of TB infection. Is it TB infection or disease?

Page 12, Third, ... those who reported a history of TB

Level of interest: An article of importance in its field
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'