Reviewer’s report

Title: The neglected burden of tuberculosis disease among health workers: a decade-long cohort study in South Africa

Version: 0 Date: 10 Mar 2017

Reviewer: Francis Mhimbira

Reviewer's report:

General comments

Health care workers at risk of developing TB because of their constant contact with potentially infectious TB patients at the health care settings but also in the communities where they live. However, the global efforts to quantify the burden and prevent TB is almost non-existent. This paper is important to describe this “neglected” issue in health care workers. The methods, result and discussion sections are well written and with a good flow of argument. However, I have few comments that warrants the attention of the authors.

Minor issues

Probabilistic record linkage: the authors have reported that the two registers from HR database and ETR.Net do not share the unique identification number. The authors need to discuss the limitation of such record linkage and bias in their results? Would such a record linkage over estimate or underestimate the risk of TB in Hws?

Lines 228-229: The risk of TB was lower among doctors and surgeons 229 in the adjusted model (RR= 0·85, 95% CI: 0·62 to 1·15). The statement is suggestive of the significant finding, which is contrary to the 95% confidence interval which has a no effect or slightly increased risk. The authors need to rephrase the statement.

Lines 229-233: HWs who had worked in the healthcare sector for less than 20 years had a greater risk of TB compared to those who had been employed for more than 20 years. In particular, HWs who were employed for 11-15 years had a more than 3-fold increased risk of TB (RR=3·60, 95% CI: 2·97 to 4·37). The expectation was the longer the HWs are employed, the more likely they may have tuberculous infection and get TB? This finding warrants a further explanation in the discussion.

References: Please review the journal names and use the accepted abbreviations such as Lancet Respiratory Medicine to Lancet Respir Med, and International Journal of Tuberculosis and Lung Disease to Int J Tuberc Lung Dis
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

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