Reviewer's report

Title: Trends in TB Case Notification over Fifteen Years: The case notification of 25 Districts of Arsi Zone of Oromia Regional State, Ethiopia

Version: 2 Date: 31 January 2014

Reviewer: Gebretsadik Berhe

Reviewer's report:

General Comment:
I have read the article “Trends in TB Case Notification over Fifteen Years” with great interest.
• The Abstract: The abstract is well written, clearly defining the objective of the study, presenting relevant results with data supported conclusion.
• The background provides the rationale for undertaking the study and it is well written and coherent.

Major Compulsory Revisions

Methods:
1. In the study design and data collection section- The authors stated that they have used Facility-based retrospective study design. Does the word “retrospective” represent a specific epidemiological study design (there could be different retrospective study designs)? So is this study design “cross-sectional” or other?.
2. Although the data was collected from apparently large number of people (41,965), it is good if the minimum sample size is calculated for the study.
3. What sampling procedure (eg. multistage, cluster etc.) was used in this study and how did you select your samples starting from the zone to the health facility.
4. The period of data collection and who collected the data needs to be described.
5. Measurements –paragraph 3, line 6 – TB case notification was dichotomized into below 120 and 120 or above per 100,000 population. It will be clear to readers if authors justify how they categorize in such a way. Did authors use any criteria (eg. Oromia Regional State or National TB case notification) or was it used arbitrarily.

Results:
1. Table 1. The sub categories for TB Classification add up to 41,919, It is less by 46 from 41,965 study populations. Was this due to missing data or unknown classification, the reason for this discrepancy need to be stated?
2. Table 3. The categories under the variables do not add up to 41,965, so it is essential to sate the study population for each category (eg. N=750).
Minor Essential Revisions

1. Under the abstract section – background, line 4. The authors stated that “its impact has not been assessed”. However, as the word “impact” may imply changes in terms of mortality and/or morbidity, it is better if it is changed with other words like progress/status/performance etc.

2. Background- Paragraph 4, line 6. Although it is described that the study was conducted in the Arsi Zone of Oromia regional state, it is also important that the word Central Ethiopia or Ethiopia is added to the last paragraph for more qualification.

3. Reference No. 28 is missing in the text, but listed in the reference list.

4. Multilevel analysis is mentioned in the discussion section, but not in the statistical analysis. So if it is used, it should be also mentioned in the statistical analysis section.

5. The words “tuberculosis” and “TB” are used alternatively. To be consistent, it is better to use either of them throughout the manuscript.

6. Results:
   • Better to delete the word “vast” from the first paragraph, line 4, since it qualifies for area rather than people.
   • Paragraph 3, line 8 and paragraph 5 line 5, paragraph 8 line 5– See Fig.1, see Table 2 and see Table 3 are used. In other parts of the manuscript, see is not used either with Fig or Table. So to be consistent, use either see Table/Fig or Table/Fig throughout the manuscript.

7. Discussion:
   • Paragraph 5, line No 2, you have used “PTB+ tuberculosis”. Better to delete the word tuberculosis to avoid redundancy as the word PTB+ represents Smear positive pulmonary tuberculosis.

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