Reviewer's report

Title: Local level epidemiological analysis of TB in people from a high incidence country of birth in a low incidence setting

Version: 1 Date: 27 August 2012

Reviewer: Wouter Arrazola de Onate

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Discretionary Revisions

1.
For readability one could use accronyms for “the population with high incidence country of birth”: PHIC or similar....

Major Compulsory Revisions

2.
Explain “local areas”? What are they? It is essential to understand what a local area is, to Judge the calculations of relative risks on page 4. Without understanding the definition of “local area” it is impossible to review RR calculation methodology.

3.
Page 3:
The authors mention that TB notifications among migrants are highest within the “first few years” after arrival in a low incidence country. There is substantial evidence that the risk of developing active TB stays high until 7 to 10 years after arrival!
This defends the thesis that migrants do not arrive with an active TB in the new country, but they develop one due to the bad conditions they are (forcedly) living in. Until years after arrival.

https://www.hpa-events.org.uk/hpa/frontend/reg/titem.csp?pageID=65520&eventID=125&eventID=125
see Lalvani presentation, slide 6

AND

Journal of Infectious Diseases Advance Access published March 22, 2012
Controversies and Unresolved Issues in Tuberculosis Prevention and Control: A Low-Burden-Country Perspective
Ibrahim Abubakar,1,2 Helen R. Stagg,1 Ted Cohen,3 Punam Mangtani,4 Laura C. Rodrigues,4 Laura Pimpin,1 John M. Watson,1 S. Bertel Squire,5 and Alimuddin Zumla6
4.
Page 5: “having higher TB rates than expected”: unclear what is meant with “than expected”? What did you expect and why did you expect this?

5.
It is of upmost importance to control for socio-economic factors on income, living conditions, nutrition to describe tuberculosis epidemiology. Talking about tuberculosis without talking about poverty and social misery would be ignorant. Only looking at migration, country of birth incidence, will only give a partial view on the underlying factors influencing the development of active tuberculosis. The authors tried to take into account socio-economics but they did it on local area level, which is not detailed enough to draw conclusions! It is advised to research individual socio-economic parameters on cases and non-cases. IRSD: a more in-depth analysis of the individual cases on Income and Social Disadvantage parameters is absolutely necessary. Only looking at Local Area level can give quite a biased picture. Big differences in socio-economic factors within the same Local Area are well known to exist. Socio-economic inequalities within the same neighbourhood exist. Even relevant SE differences in one street appear, where for example rich migrants live on one part of the street and poor migrants from the same country on the next (across the bridge...). Where poor migrants are more probable to develop an active TB from their latent infection. Please try to elaborate further.

6.
In the discussion refere to the work of


Reitmanova S, Gustafson D. Coloring the white plague: a syndemic approach to immigrant Tuberculosis in Canada. Ethnicity&Health. 2011, 1-16

Acces to health care and screening strategies need to be supplemented with fighting poverty within migrant populations. Preventing poor living conditions, low income, bad nutrition and social misery is probably much more effective in preventing active TB, further transmission and future treatment costs. The majority of tuberculosis among migrants arises through the reactivation of infections acquired abroad and we all know that a normal person is not supposed to reactive its latent infection, only in 10% and mostly due to weakened immune response. Stress, poverty, bad nutrition, bad living condition are well known factors increasing the probability of developing an active TB after infection.

7.
In the discussion on targeted interventions to some migrant populations it is useful to refer to the consensus of the International Union Against Lung Disease
and Tuberculosis on Undocumented Migrants and health rights:

INT J TUBERC LUNG DIS 12(8):878–888 Diagnosis and treatment of tuberculosis in undocumented migrants in low- or intermediate-incidence countries. E. Heldal,* J. V. Kuyvenhoven,† F. Wares,‡ G. B. Migliori,§ L. Ditiu,¶ K. Fernandez de la Hoz,# D. Garcia**

From a rights-based approach it is useful to repeat these recommendations:

1) health authorities and/or health staff should ensure easy access to low-threshold facilities where undocumented migrants who are TB suspects can be diagnosed and treated without giving their names and without fear of being reported to the police or migration officials. Health authorities should remind health staff that they have an obligation of confidentiality; 2) each country should ensure that undocumented migrants with TB are not deported until completion of treatment; and 3) authorities and non-governmental sectors should raise awareness among undocumented migrants about TB, emphasising that diagnosis and treatment should be free of charge and wholly independent of migratory status.

And refer to the consensus on Cross-border tuberculosis control, especially to stress the strong recommendation and medical obligation of a country to NOT deport a person with TB until the successful end of treatment.


7. Destigmatisation can be facilitated by refocusing from migration towards social determinants and poverty, as the most important factor for developing tuberculosis.

8. Migration patterns can vary strongly from one year to another so using the Census 2006 multiplied by 3 is quite dangerous.

Researchers should control for migrants that are not included in the denominator and included in the nominator.

Asylumseekers and refugees are often not included in population statistics, so don’t appear in the denominator. But cases among asylumseekers and refugees DO appear in the nominator leading to a dangerous overestimation of incidences among the foreign-born. Controlling for this conflict, leads to significantly lower incidences. Please elaborate more in the discussion part, as a warning.

**Level of interest:** An article of limited interest
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