Reviewer’s report

Title: Expatriates ill after travel: Results from the GeoSentinel surveillance network

Version: 2 Date: 20 August 2012

Reviewer: Bryan Spencer

Reviewer’s report:

• Major Compulsory Revisions

The author must respond to these before a decision on publication can be reached. For example, additional necessary experiments or controls, statistical mistakes, errors in interpretation.

1) The acknowledged limitation that risks and rates cannot be estimated notwithstanding, there are multiple instances where the language seems to conflate proportionate (relative) morbidity (PM) with absolute risks. Specifically, par 5 of Discussion (3rd sentence, beginning “However…”) suggests that expats have lower risk for certain GI conditions in contrast to what the literature suggests. In fact, based on the methods used here, the expats could have higher risks and rates of these conditions but lower PM due to yet higher risks for other conditions. Similarly, the language in Par 6 on vaccine-preventable diseases suggests that higher PM is tantamount to higher risk. Finally, the 2nd and 3rd sentences of Par 9 of the Discussion (beginning “Enteric fever…”) contrasts the relatively high incidence in “travelers to the tropics” (a much broader group than analyzed here) with the lack of higher PM in expatriates compared to non-expats. The limitations of working with numerator data alone are well understood, but the text occasionally treats relative abundance in ill travelers as reflective of absolute risks. The words “disproportionately more often” in the abstract are another example.

• Minor Essential Revisions

The author can be trusted to make these. For example, missing labels on figures, the wrong use of a term, spelling mistakes.

1) The section on Statistical Methods lacks detail and does not describe how adjusted odds ratios are obtained. It is clear only in the paper’s penultimate paragraph that they are derived from regression models rather than stratified tables.

2) The text (last sentence of last par of Results) mentions Table 4, which has apparently been deleted.

3) Par 4 of Discussion (Sentence 3) indicates that multiple studies reflect a range of malaria prophylaxis by missionary travelers, yet cites only one study, and one that by the title appears to be restricted to one region of one country.

• Discretionary Revisions
These are recommendations for improvement which the author can choose to ignore. For example clarifications, data that would be useful but not essential.

1) Under Discussion, 1st paragraph, the last clause of the last sentence is confusing.

2) The last sentence of the first paragraph of the Introduction is a non-sequitur; there is no explanation of why the number of number of expatriates worldwide should be estimable from the number estimated in UAE alone, nor is it readily apparent from the text.

3) While expatriates are described as a “diverse” group with “longer duration” travel (1st par of Introduction) and as taking of temporary residence in another country for “occupational purposes” (2nd par of Introduction), the definition of “expatriate” adopted by GeoSentinel is confusing. By focusing exclusively on residence and reliance on local infrastructure (which is not defined or explained) and having no temporal minimum, the authors have standardized their definition in a manner that seems overly narrow and of perhaps limited value in comparing the results to other studies on expats. The restriction of purpose of travel to business and volunteer assignments further limits the diversity of the study population and the generalizability to “expats” as commonly understood.

4) The same paragraph 5 of Discussion indicates that development of partial immunity might explain the unexpected results for GI conditions. This again suggests the risks are different (when in fact they are unknown), and moreover the results (as interpreted) might just as readily be explained by changes in behavior by expats over the course of time that diminish risk for acute diarrheal illness.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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