Reviewer's report

Title: The association between farming activities, precipitation, and the risk of acute gastrointestinal illness in rural municipalities of Quebec, Canada: a cross-sectional study

Version: 1 Date: 10 October 2009

Reviewer: Song Liang

Reviewer's report:

Major compulsory revisions

The study attempted to assess association between farming activities, precipitation and AGI using data primarily based on a cross-sectional telephone survey. Like many similar studies, the study is subject to some flaws in many aspects. For example, exposure assessment – through telephone interview measuring individual exposure is vulnerable to biases. Using the type of design it is very difficult to allow one make any causal inference. Some results seem to lack biological/epidemiological plausibility.

Some specific issues:

1. On page 6 in Study Population section, the 1st criterion for definition for a municipality with low intensive animal farming was the same as (>= 25% of its surface area ...) the one with high intensive animal farming, why?
2. Case definition. For (a) and (b), temporal discrepancy was brought in case definition (e.g. for (b) any vomiting in the 28 days prior to interview), how that would impact the result was unclear, in particular looking at the lagged effect of precipitation.
3. The latitude and longitude coordinates of each municipality was collected and how the information was used in the study?
4. Major weakness and limitations of the study weren’t even discussed …

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.