Reviewer's report

Title: Tracking the spatial diffusion of influenza and norovirus using telehealth data: a spatio-temporal analysis of syndromic data.

Version: 1 Date: 12 March 2008

Reviewer: F C Tsui

Reviewer's report:

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- Major Compulsory Revisions

1. The main issue with the study is the lack of definition of outbreak period based on the gold standard data (laboratory reports) and the quantitative measure of timeliness of the call center data when comparing with the gold standard data. The authors used non-scientific term “rise” as a way to measure timeliness, which is troublesome to the reviewer.

2. The reviewer does not see the first fever call peak occurred prior to the ILI in North England in Figure 5. As a matter of fact, according to Figure 5, the ILI peak (around 50/2005) occurs prior to the peak of fever calls (around 51/2005).

3. The authors use only one year data to demonstrate the usefulness of call center data is not convincing. The reviewer suggests authors to use multiple years of data to demonstrate the timeliness.

- Minor Essential Revisions

1. Although authors stated that Influenza B infection predominantly affects school ages children, it’s not clear to the reviewer why authors chose only Influenza B instead of using both Influenza A and B (normally more Influenza A cases than Influenza B)?

2. Why do the authors use weekly data instead of daily data? If the frequency of data collection is weekly, authors should state it.

3. On Page 9 Line 8, “Also if during a specific week (e.g., the Christmas holiday when doctor’s surgeries are closed) all areas experience a doubling of vomiting call, no clusters will be identified.” The author should explain why it’s not the case where the entire country becomes a large cluster.

4. No Table 4 available but cited on page 12

- Discretionary Revisions

None.

[X] Too insignificant to warrant publication in BMC Public Health (note that this journal’s policy is to publish any scientifically sound research)
Based on your assessment of the manuscript, what do you advise should be the next step?

[X] Reject because scientifically unsound

Quality of written English
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As we do not charge for access to published research, we cannot undertake the costs of editing. If the language is a serious impediment to understanding, you should choose the first option below, and we will ask the authors to seek help. If the language is generally acceptable but has specific problems, some or all of which you have noted, choose the second option.

[X] Acceptable

Statistical review
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Is it essential that this manuscript be seen by an expert statistician?

If you feel that the manuscript needs to be seen by a statistician, but are unable to assess it yourself then please could you suggest alternative experts in your confidential comments to the editors.

[X] - Yes, and I have assessed the statistics in my report.

Declaration of competing interests
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