Reviewer’s report

Title: Influences on Influenza Transmission within Terminal Based on Hierarchical Structure of Personal Contact Network

Version: 3  Date: 16 September 2014

Reviewer: Sudhir Venkatesan

Reviewer’s report:

The authors present an interesting article describing a novel approach to study influenza transmission within personal networks at an airport terminal. However, there are some issues that need to be addressed and some key clarifications that need to be made. I list them below in the order of importance.

Major Compulsory Revisions:

1) The authors seem to address the complex hierarchical structure of a personal contact network quite well but they could address the epidemiology of influenza a bit more in detail. For example, what strain of influenza are the beta values based on?

2) Authors report that the initial values they used for the simulation were: Susceptible-74.2%; Exposed- 9.6%; Infectious-4.2%; Removed-12%. More detail is needed on why these specific initial values were chosen.

3) The authors state that they performed a survey to obtain information on social relation patterns of passengers in A terminal. More details/clarity is required on specifically how this was performed and on what population etc.

Minor Essential Revisions:

4) Readers will benefit from a table with a list of parameters names, values and source.

5) Where referring to existing literature, it would be clearer to state the name of the first author and year of publications rather than to simply state the reference number.

Discretionary Revisions:

6) The authors only discuss intervention strategies very briefly. Considering that this is a public health journal, a more detailed discussion of interventions and control strategies would be of interest to readers.

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

Quality of written English: Not suitable for publication unless extensively edited
**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.