Reviewer's report

Title: Social Networks of Children and Teenagers: Characterization and Application for the Spread of Pandemic Influenza

Version: 2 Date: 18 January 2008

Reviewer: Miriam Kretzschmar

Reviewer's report:

1. Page 11, last 2 paragraphs: I think it is hard to compare contact level hours in households and random contacts in their transmission potential, because the number of persons who can potentially be infected differs strongly. In a household, even with many contact hours, the number of secondary cases remains limited, while in random contacts potentially many more persons can be infected. This should at least be mentioned or discussed.

2. Page 12, para 3: The arbitrary nature of the scale in which contact levels are measured should be mentioned and discussed.

3. Table 1: The table is very useful for understanding the paper! It made clear to me that the essential property of public activities is that in principle there is a chance for contact between any two persons of the population, so a kind of global contact as opposed to local contacts in groups (compare nice paper by F.G. Ball, D. Mollison and G. Scalia-Tomba, Epidemics with two levels of mixing, Ann. Appl. Prob. 7 (1997), p. 46.)

4. Figure 5: a,c and e would look better on a categorial scale, better use of available space.

5. Figure 6: Maybe useful to have a legend (even if colors are explained in figure caption)?

6. Page 2, last line: Brittain

7. Page 14, acknowledgements: my name is spelled Mirjam

What next?: Accept after minor essential revisions

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