Reviewer's report

Title: Seroepidemiology of pandemic influenza A (H1N1) 2009 virus infections in Pune, India

Version: 2 Date: 18 June 2010

Reviewer: Karen Laurie

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Major Compulsory Revisions

Original comment: 3. Laboratory procedures mentioned that 'sera with non-specific agglutinins were treated with turkey red blood cells'. Did this apply to all samples? How was the non-specificity determined? Was this reaction removed by RBC adsorption. This needs to be made more clear to ensure no bias in the assaying process has occurred.

Re-revision comment: Although much clearer, these revisions have only been partially addressed. Can the authors please include the number of samples that were adsorbed and the spread of these samples amongst the population to indicate if any biases were or were not found.

Original comment: 6. Samples were collected at multiple times, post-pandemic. The results divide the samples into age brackets, yet there is no outline of the age breakdown in the methods, nor if there is any bias in age group collection at each timepoint. The number of samples for hospital staff and general practitioners in the results text does not equal the number of samples in Table 1. Also, in the section outlining the determination of cut-off titre, ‘1599 sera with detectable HI antibodies’ is mentioned. Where are these sera from? This does not match with the data in the tables. The results text and tabulated results suggest a mix-up of the data and reduces confidence in the analysis. A table outlining the 'group', 'time of collection', 'age at each timepoint', and sex should be broken down for every serum set so the reader is clear on the samples analysed - including the baseline samples. A separate Table should then outline the proportion positive and negative.

Re-revision comment: This has been partially addressed. The timepoint data for Hospital staff and General practitioners is much clearer, but the age distribution data (20-30 year olds vs 40-59 year olds) is not clear for these two groups. What
timepoint is described for the aged divisions, this does not add up to the numbers in table 1?

Further, for the school children, Table 2 shows a total of 2528 children sampled, whilst the text describes 2527 (pg 9). The time of collection (September) should also be included in the Table legend. 631 children are sero-positive according to Table 2 and page 9, whilst ‘650’ sero-positive subjects are indicated on page 10. Please clarify.

Figure 1 – The text (pg 10) indicates 56% school children were seropositive for seasonal H1N1 and 27.3% for seasonal H3N2. Can the authors please check this against the figure as it may be reversed.

The text (pg 11) indicates 2520 people in the general population, as does Table 1, however Figure 1) shows 2328 people. It appears that the 10-14 year old age group has a higher proportion of sero-positive people to pandemic H1N1 than the 20-29 year olds.

Please indicate in the text when ‘data is not shown’.

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

**Quality of written English:** Needs some language corrections before being published

**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