Reviewer's report

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

Version: 1 Date: 1 May 2010

Reviewer: Ted Ross

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Major Compulsory Revisions

These studies are necessary and it is nice to see that they are being conducted in multiple areas of the world in order to give a complete picture of the pandemic.

1. Infection with Influenza virus causes significant seasonal morbidity and mortality worldwide. In addition, influenza strains differ in their burden on age groups and socioeconomic populations and National policy agendas are assisted by serosurveillance data, understanding transmission rates and immune reactivity.

Do the high rates of school aged children were also seropositive for the representative seasonal flu strain

Past vaccinations may contribute to cross-reactivity against seasonal strains. Are there HAI cross-reactivity between H1N1 strains induced by vaccination or infection with strains circulating between 1957-2008 and the novel H1N1 2009 strains.

2. A titer of 1:10 in HAI is too low to determine seroprevalance. The authors should reanalyze the data for a 1:40 titer cut-off and present the data. The commonly accepted positive HAI titer is 1:40.

3. Were there higher rates of novel H1N1 positives in the highest age group (greater than 80 years of age)? The author broke out the school children into smaller increments, they should do the same with the group over 65 years of age. Published data indicates that the oldest age groups may have pre-existing antibodies to these new 2009 strains of H1N1.

4. The authors should comment on the following to give the reader a full picture of the pandemic in this area of India. A) When did the second wave of infections hit India and when did they peak? B) How does the peak in infections correspond to the collections of samples by this group? C) When did the novel H1N1 vaccine become readily available in this part of India? D) How many health care workers were vaccinated and what was the vaccine history of the workers in this study? E) Since infections in children are associated with time of the school year, the authors might let the readers know the time of school in India.

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'