Reviewer's report

Title: Assessment of measles Immunity among Infants in Maputo City, Mozambique.

Version: 2 Date: 26 June 2008

Reviewer: Claude P. Muller

Reviewer's report:

Jani et al. have resubmitted a revised version of the article entitled « Assessment of Measles Immunity among Infants in Maputo City, Mozambique ». Most of our previous comments have been properly addressed. However, there are still several contradictions in the interpretation of results, the conclusions aren’t always consistent and only partially backed-up by the results.

1. On the one hand the authors claim that there were only few sporadic cases (41 and 53 in 2004 and 2005) in a city with 1.5 Million inhabitants and on the other hand they suggest that several infants (at least 14 (2.7%); IgM positive or IgG positive and mother IgG negative) had been in contact with wt virus. Is it possible that measles is underreported in Mozambique, because of limited sensitivity of surveillance?

2. If the specificities of the ELISAs were taken into account the number of possible “subclinical infections” would be significantly lower:
   - Measles IgG test specificity = 86.7%; about 13% false positives can thus be expected, the percentage of IgG positive infants born from IgG negative mothers was 11.5 and 10% in the 6 and 9 months old cohorts respectively.
   - Measles IgM test specificity = 96.6%; 3.8 and 6.3% of 6 and 9 months old infants were tested positive for measles IgM.

3. How do the authors explain that there seemed to be only subclinical infections and that none of the infants had clinical symptoms? Which observations or reports was the absence of clinical symptoms based on? Is it possible that these reports had limited reliability? If mothers report that the child did not have measles or was not sick, what does this mean in a setting where fever is not usually measured, rash is difficult to make out on dark skin and many children are multimorbid.

4. Why would the authors want to vaccinate infants at 6 months of age already, if none of them had clinical measles despite the fact that some had supposedly been exposed to wt virus? Although vaccination against measles at 6 months of age may be of advantage (in some situations) the results from this study do not necessarily suggest this. In the conclusion the authors state that: “Our results show that, in Maputo City, six-month-old children seem to be better suited for immunization than nine-month old children. This evidence is further compounded by the fact that a relatively high proportion of nine-month-old infants develop an immune response after vaccination.” This conclusion is not backed-up by the
results of this study, since vaccination at 6 months of age has not been tested.

**Level of interest:** An article of limited interest

**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