Reviewer's report

Title: Measles transmission from an anthroposophic community to the general population, Germany 2008 - Effect of early intervention on size and duration of measles clusters in school and kindergarten settings

Version: 3 Date: 9 March 2011

Reviewer: Jean-Luc Luc Richard

Reviewer's report:

The article has strongly improved. The authors responded to most of my comments.

The only major concern remains the vagueness about the denominators used to calculate the overall attack rate and the attack rate by type of intervention. Among the limitations of the study, it is now mentioned that "... information on the population at risk (number of susceptible contacts per school or kindergarten) was not sufficiently available. Therefore, attack rates were compared among all children and/or teenagers attending the affected schools and kindergartens". Above in the discussion it was also noted that "The compared attack rates should be interpreted with caution since the number of persons who were already immune against measles was not IDENTIFIED [my emphasis] in the clusters".

But in the methodological section it is clearly suggested that the immune status of children attending nurseries or schools submitted to the intervention was assessed: "The trigger for exclusion of NON-IMMUNE [my emphasis] persons from the respective school or kindergarten (...). IMMUNE PERSONS WERE [my emphasis] those with at least one documented vaccination against measles a minimum of three weeks before disease onset, immunity confirmed by serology or anamnestic measles. (...) Vaccination cards in schools and kindergartens were checked by staff from the LHAs...". Accordingly, if the number of non-immune (or at least unvaccinated) children in each school or kindergarten is known, it would be more specific to use them as denominators in attack rates (instead of the whole number of children). On the contrary, if the authors were unable to obtain from local health authorities sufficiently reliable information about the number of non-immune children, please modify the above sentence containing the words "not identified", which seems to be in contradiction with the situation described in Methods.

You removed old table 4 of your article, neither without specifically mentioning it nor justifying it in any of your answers to the reviewers. However this table contained the main data and the central results of your research, in particular the number of cases and children in each kindergarten and school (i.e. numerators and denominators to calculate the attack rates). I expected on the contrary that you add the number of new cases that occurred post-intervention and the attack rates in this table. Currently, no figure making it possible to calculate these rates for both interventions is available in the article! Moreover, the attack rates
appearing in the current version of the text do not correspond apparently to those that could be calculated from the old table 4 (21/1474 for A and 49/1730 for B intervention?). I would like this table is completed and reintroduced in the article.

**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.