Reviewer’s report

Title: Hand hygiene instruction decreases illness-related absenteeism in elementary schools: a prospective cohort study

Version: 2 Date: 6 December 2011

Reviewer: Wolf-Peter Schmidt

Reviewer’s report:

Major compulsory revision

I appreciate the improvements the authors have made to the manuscript. However, I am still concerned about the statistical analysis not accounting for clustering. I am not sure I can follow the explanation given by the authors. Surely they must have collected data at classroom level in order to distinguish between intervention and control. Therefore it should be possible to compare the classroom level rates in intervention and control using a simple t-test. These are standard procedures in a cluster allocated trial. Please see the literature (e.g. Donner/Klar, Hayes/Moulton).

Failure to take into account clustering produces confidence intervals that are much narrower than would be realistic. This flaw in the analysis must be addressed in my opinion. Otherwise I cannot recommend this study for publication.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

'I declare that I have no competing interests'