Reviewer's report

Title: Hand washing with soap and water together with behavioural recommendations prevents infections in common work environment: an open cluster-randomized trial

Version: 1 Date: 10 November 2011

Reviewer: Qian Li

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Major Compulsory Revisions:
1) Since participants in the control arm did not forced to not use soap/water or alcohol rub, the effectiveness from IR1 may only due to the behavioral recommendations.
Since soap/water is the most commonly used personal hygiene method, switching from soap/water to alcohol rub may occur in IR2. Thus, the comparable effectiveness of IR2 and control arm may indicate that switching hygiene habits could not improve reduction in acute illness.
The authors need to discuss above issues. The limitation section of the paper touched base on these, but is not sufficient.

Minor Essential Revisions:
1) The conclusions in the abstract should specify water and soapy together with behavioral recommendations (not just “improved personal hygiene measures” which includes alcohol-based hand rub) can reduce the occurrence of self reported acute illnesses in common work environment.
2) A proportion test is used to compare the endpoints between arms and different time points. Some details are needed. Is the proportion test chi-square test?

Discretionary Revisions
1) The trial was conducted in common work environment. It would be helpful to describe the types of industries in each arm.
2) Authors can investigate the sample size needed, given certain power, to detect the differences between arms. This may help to answer the question why endpoints of IR2 were not significantly different from control arm as in other paper.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.
Declaration of competing interests:

No to all of the above questions.