Reviewer's report

Title: The impact of health and Islamic school-based teaching programs on smoking: a randomized control trial with 11 to 14 year olds in Aceh, Indonesia

Version: 2 Date: 14 November 2012

Reviewer: Yan Wang

Reviewer's report:

This paper reported the effect of separate health and religious based education intervention on adolescents' smoking knowledge, attitude, intention and behaviors in Indonesia. It is an interesting paper and the results have significant implication on prevention of tobacco smoking in adolescents. The factorial design of the intervention is novel. However, there are several important issues that need to be solved before publication:

Major Compulsory Revisions

1. This intervention is a group-randomize trial (Murray et al., 2004). There was clustering of students in schools. However, this paper considered it as a RCT instead of group-randomized trial in both statistical analyses and power analyses.

2. This paper used ANCOVA design to examine effects of the interventions, which did not consider the clustering of students in schools. More advanced statistical methods, e.g. multi-level modeling, should be used to account for the clustering.

3. The power analyses did not consider the Intraclass Correlation (ICC), the cluster size and the design effect in group-randomized trial. Due to the ICC, the power should be reduced in group-randomized trial.

Minor Essential Revisions

4. Only p values for the interaction are shown in Table 2. Coefficients need to be presented to indicate the direction and strength of interactions.

5. There were differences in the residence among the intervention groups. However, the variable "residence" was not adjusted in the analyses of intervention effect.

Discretionary Revisions

6. When the interaction was significant, results based on stratified analyses might be reported. It is clearer if the intervention effect for one intervention (e.g. health program) is presented for each level of the other intervention (Islamic program).

Level of interest: An article whose findings are important to those with closely
related research interests

**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.