Reviewer's report

Title: Population awareness of risks related to medicinal product use in Vientiane Capital, Lao PDR: a cross-sectional study for public health improvement in low and middle income countries

Version: 4  Date: 24 April 2015

Reviewer: Masamine Jimba

Reviewer's report:

[Major comments]
L192, 195, 240, 241: The authors included all the variables that were significant at a 20% level in the multivariate logistic regression (Table 4), according to L192. In addition, according to the authors' comment, they excluded variables that were not significant in the multivariate logistic regression to select the independent variables in the final multivariate logistic regression model. I have an impression that two different variable selection strategies were used in this study. If the authors intended to restrict the number of independent variables based on the criteria of the significance level in the univariate regression, the multivariate regression should have had all the variables that met this criteria (without further variable elimination process). If the authors intended to use the backward stepwise approach, they should have not used the criteria of the significance level in the univariate regression. And regardless of the variable selection method that this study finally applied, this stepwise procedure should be clearly mentioned in "Data Analysis" subsection, not only in L240-241.

L240: The final multivariate regression model did not report Adjusted Odds Ratio because there was only one independent variable in the multivariate regression model and thus it was not "adjusted" by any other variables. Then, it should not be called as an aOR.

L323-327: The authors presented that only "District" variable was included as the independent variable in the final multivariate logistic regression model. If District was controlled for by other (individual or household level) factors, the authors may be able to discuss the availability of health services, among other supply side factors and geographic factors as "District" may mainly represent. However, without controlling for by any other variables, the authors may not be able to investigate what factors that "District" may really represent. In the lines 323-327, the authors discussed "distribution of health facilities" only as a factor that this variable represents. The authors should discuss a variety of factors that were possibly captured by "District."

[Minor comments]
L64: Unclear if 85.0% is "85.0% of all the respondents" or "85.0% of those who were unaware of medicine risks."
L137: This sample size calculation did not consider design effect that can arise in two-stage random sampling as this study did.

L215-: The word "frequently" may not be appropriate in this context. It sounds like a respondent had a low level of education repeatedly. The authors may want to say that "Respondents being unaware tended to have a low level of education....."

L260: The word "almost" sounds inappropriate in this context.

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

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests.