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: 2  Date: 29 January 2015

Reviewer: Masamine Jimba

Reviewer's report:

Major compulsory revisions

1 Overall, the definition of urban and rural should be more carefully studied. For example, in the reference paper 19, urban, rural or remote was defined by ‘distance in travel time (hour) from provincial capital.’ In this paper, however, the definition is not clear. In the discussion, rural in Vientiane Capital and rural in Savannakhet in ref 19 are considered similar or the same.

2 Data collection (P7~ L171~)
How was the number of villages (three per district) decided?
Please explain about your sample size calculation?
Why were household heads assigned as interviewees? Family caregivers should have been more appropriate interviewees for your study purpose.

Recall bias should have been avoided. For example, in Table 3 (last medicines used within the previous 12 months), about 40% of the medicines were not identified. On what basis, was the time period "12 months" decided?

P8 L194~
How the questionnaire was developed? Any references/ How about its reliability and validity?

3 Data presentation
In Table 2, the way percentages were calculated is incorrect. For example, in District Xaysetha, the presentation should be as follows:
Out of 36 respondents, 22 (61.1%) were aware and 14 (39.9%) were unaware of medicine risks.

In Table 3, data should be described based on 102 respondents, not based on the number of medicines they raised. For example, what % people raised that vitamines/minerals should be described.

4 Interpretation of the results
There are several misinterpretations on the results. For example, under "Respondent characteristics", there is a sentence "The degree of urbanization
was significantly associated to the awareness of medicine risks. Respondents living in rural (Sangthong) and peri-urban (Naxaithong) areas had a higher risk of being unaware compared to those in the urban district of Xaysetha (33.7% and 27.0% versus 15.7%, respectively, p=0.001)". However, the results of another urban area "Sikhotabong" are not included in this sentence. Although Sikhotabong is classified as "urban" in the Methods section, more than half of the villagers were unaware of the medicine risks, which is contradictory to the above sentence. Results of data analysis should be carefully interpreted.

5 The discussion is too long. Rather than discussing the unique findings of this study, the authors are discussing those of the past studies, which should be rather quoted in the introduction. Ideally, in each paragraph of the discussion, the authors’ findings should be presented first, and then discuss how important they are.

6 Conclusion
L 432 ‘….the degree of urbanization are apparent.’ In this, the term ‘urbanization’ should be more carefully used.

Minor essential revisions
1 L172, 178: Vientiane Capital and Vientiane province is different. The authors seem to mix up both.

2 L228: Ethical approval was obtained only in Laos? When foreigners conduct a research in a developing country, it is recommended that the approval be obtained from both countries, though it might not be the must.

3 L236 ‘45.1 (SD 12.5) years old’

Discretionary revisions
1 L166 ‘Based on face to face interviews’ can be reviewed as this is a method statement.

**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.