Reviewer’s report

Title: Epidemiology and Risk Factors for Hypertension in Rwanda: Implication for Non-Communicable Diseases Prevention and Control

Version: 0 Date: 31 Jan 2017

Reviewer: Naohiro Yonemoto

Reviewer's report:

1. This is a population-based cross-sectional study with hypertension in Rwanda. I hope this paper was a valuable report, but I feel some modifications would be needed.

2. Authors were written in "population-based data to inform policy development are scarce in some countries", but the statement was overstated. This was one cross-sectional study by sampling-based. I hope the evidence was some limitations.

3. This was a secondary analysis but, main study design and results was still unclear.

4. Notations with sample size equation was still unclear.

5. L75-80, this paragraph was unclear. Was this your opinions or previous statement from some articles (if yes, citations were needed )

6. L97, "recommended when the prevalence is unknown", Why and Who was recommended?

7. L98, "This basic sample size was adjusted for design effect for complex sample design (1.50)," was unclear. What was 1.50 ?

8. Sampling methodology was still unclear. I hope the section was needed more details and some citations. What was "Enumeration Areas", "a sampling frame for random selection of EAs", "Probability Proportional to Size (PPS) sampling", "systematic random sampling method", "The sampling interval", "Kish sampling" and "Kish selection method" ?

9. L122, 126, I hope roles of "survey team" and member of "data collection team "should be written more. Was both teams same?

10. L129, Who was "survey supervisors" ? Was he/she in survey team ?

11. L128, What was "e-STEPs" ?

12. L149, "7116" analyzed data number should move on results section.

13. L156, "multivariate logistic regression was conducted for all variables of interest with p-value <0.05 defined as threshold for significance." was still unclear. How to select the
variables? Whether it was on univariate model under 0.05 p-value or on multivariable model under p-value 0.05? Was the model valid from clinical and public perspectives? You should write first candidate variables and all selected variables in the model.

14. L157-158, the last sentence was should deleted. It was not appropriate on "data analysis".

15. L175, the data was a epidemiological study, You could not decide them by P-value.

You should interpret the effect size.

16. L184, In multivariable model, 95%CI was not shown. You should add them on all text and tables..

17. L184, Most low P-values (0.000) should be shown as "<0.000" on all.

18. In discussion, I hope you should discuss below,

1) From this findings, how to plan you can new future health plan in Rwanda.

2) The data was some limitations you written. What was the best data? What can you plan next future study?

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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None

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