Reviewer's report

**Title:** Pre-pregnancy predictors of hypertension in pregnancy among Aboriginal and Torres Strait Islander women in North Queensland, Australia: a prospective cohort study.

**Version:** 2 **Date:** 16 January 2013

**Reviewer:** Frank Spradley

**Reviewer's report:**

The paper is very interesting and focused on an important topic related to morbidity and mortality in pregnancy due to the growing prevalence of obesity. The authors have made significant revisions to their manuscript to make it easier to read. The reviewer has a more minor compulsory comments regarding presentation style.

**Minor Compulsory Revisions:**

**Abstract**

In the background, does the term indigenous refer to both Aboriginal and Torres Strait women?

Please remove the phrase ‘potentially amenable to intervention before pregnancy’ from the abstract. This sounds like a conclusion statement and should be included in the discussion.

It is unclear what the word ‘linked’ means in the methods. Also, it is not known what and/or who the two populations of data represent. Were all the women in the ‘hospitalisations data’ indigenous; were all the women in the ‘perinatal data’ non-indigenous? Did all the women included in the study become pregnant? The term childbearing age is ambiguous.

The literature has varying definitions of the metabolic syndrome. Can the aspects of this syndrome that were examined in this study as risk for hypertension in pregnancy be defined in the abstract? Please define what the authors consider the metabolic syndrome.

In the results and conclusion, please do not use the word subsequent. This phrasing makes in seem that multiple pregnancies were assessed in this study.

**Introduction**

The introduction is repetitive. The introduction should be more tightly organized. In the first paragraph, although the % values are there, it needs to be highlighted that reason the specific populations were included is because there are at the extreme risk for developing hypertension in pregnancy. This paragraph needs to point readers in the direction the study was taken, i.e., it is unclear what causes the increased risk for hypertension in pregnancy in the indigenous populations.

Actually, it seems that the first, second, and third paragraphs and the first three sentences of the last paragraph need to be combined. Although the information
in the second paragraph is necessary, it seems that this paragraph breaks the natural progression of the background (it separates two paragraphs were the Australian populations are discussed). The new first paragraph should have the following organization: 1: highlight the reason the indigenous populations were studied by combining the first and third paragraphs and those sentences in the last paragraph and use points from the second paragraph when it is necessary to define the types of hypertension during pregnancy) and 2: state that it is unclear why the indigenous populations have this increased risk for hypertension in pregnancy.

The last paragraph should begin with the fourth paragraph and tack on the last two sentences of the last paragraph.

Methods
The Methods section needs to be reorganized: The ‘Study population’ paragraph should be the first section of the methods.

The next paragraph should be the ‘Study design and data sources’ section, however, renamed this as ‘Data sources’. In the first sentence, replace the semicolon with a comma. Also in this first sentence replace the last ‘the’ with ‘this’. Please state where the second dataset begins in the first paragraph. In the second sentence, the ‘c’ in check should be capitalized; place a sentence in parentheses that indicates that the specifics of the WPHC are detailed below. In the last sentence of the first paragraph, capitalize the ‘c’ in classification and replace ‘health check’ with ‘WPHC’.

Why is the third dataset paragraph separated from the paragraph describing the other two datasets? Was the third dataset related to the WPHC? Where pre-pregnancy parameters assessed in this population? It should be stated clearly the purpose for including each data set in this study.

The ‘Data collection’ section should be retitled the ‘Well Person’s Health Check’. Self-reported behavioral factors should be separated from the blood pressure details and placed in its own section.

Cities and country details for products should be kept consistent. If cities and countries are mentioned for one product, both details must be mentioned for all products.

Results
Please retitle the first section: ‘Pre-pregnancy characteristics at WPHC’. The first sentence should begin by saying, ‘At the baseline WPHC…’

What ‘characteristics’ are you referring to in the first paragraph? Does this include baseline blood pressure and circulating lipid values that are described later in the results? Perhaps a list of these values followed by the citation would prepare the reader for what will be included in the results. Remove the word ‘briefly’ because these values are important for the topic at hand.

Second paragraph: remove ‘among the women who had a baby’ from the title. Changes with phrase health check to WPHC.

Third paragraph: retitle to ‘Pre-pregnancy characteristics as risk for hypertension
in pregnancy: unadjusted analyses’. Fruit and vegetable intake are included as a pre-pregnancy characteristic, was this parameter included in the unadjusted analysis.

In the third section, it is not clear why the section was broken into two paragraphs. It seems that the authors are just listing their results when there should be some type of coherent flow to make it easy to read. Also, maybe ‘metabolic syndrome’ should be defined in the background; remove the parentheses-enclosed statement.

In the fourth section, please retitle to ‘Pre-pregnancy characteristics as risk for hypertension in pregnancy: analysis adjusted for age and ethnicity’. Again, it is not clear why this section was separated into two paragraphs, please give a nice direction for your results.

Discussion

Remove the last sentence of the first paragraph. Replace with, ‘By studying indigenous populations of Australians, which have some of the highest prevalence of hypertensive pregnancies, we have emphasized obesity and hypertension as independent contributors to this disease.’

Begin second paragraph with “Our results add…”.

Conclusion

In the first sentence, it needs to be stated what the control group was.

A statement should be made in the conclusion about how these findings have enhanced our knowledge base, in general, about risk for hypertension in pregnancy.

Tables

Why is Torres Strait Islander mentioned twice?

In the heading for table two, remove ‘during the subsequent’. It should be said in the methods that pregnancy characteristics were assessed after the WPHC.

Level of interest: An article of importance in its field

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

No competing interests.