Reviewer's report

Title: Maternal obesity, environmental factors, cesarean delivery and breastfeeding as determinants of overweight and obesity in children: results from a cohort

Version: 1 Date: 3 September 2014

Reviewer: Kyra Sim

Reviewer's report:

Developing a birth cohort study is a huge undertaking and your hard work and effort is truly acknowledged. Recognition of the developmental origins of health and disease is crucial for us to try and understand and overcome the epidemic of non-communicable diseases we are facing.

It would have been great if you collected paternal samples - if you have, please include them in the paper and analysis.

It is repetitively stated that the health benefits from breastfeeding have only recently been investigated. This is not consistent with the published literature. Additionally, I would suggest perhaps referencing the breastfeeding studies from Belarus?

This is great work however, and I knowledge that English is not your first language, the paper requires a lot of refining. I have added some suggestions below. They are to help and assist you to make this a better paper.

Major compulsory revisions

Abstract
1. Background: the second sentence does not make sense, please amend
2. Conclusions: the first sentence requires revision, it should be very impactful and summarise the study outcomes more succinctly

Background
3. Summarise the second paragraph, beginning with “Over the course of 1996 and 1997”. It is too long winded and could be explained more concisely
4. The first sentence of the third paragraph, page 2, line 24 does not make sense, please amend
5. I would look at rewording the whole paragraph beginning on page 3, line 3; most certainly the last sentence as it does not make sense, please amend
6. Reword the objective, the last paragraph, it needs to be concise

Results
7. Stratification of children by breastfeeding or weaned at 12 months: on page 6,
line 10, was it a genetic factor? Did you collect and analyse DNA samples? Be very careful many such a definitive statement. Reword this sentence if required

Discussion
8. To the whole section: The Discussion section requires considerable rewriting. Please take note of the points below as initial suggestions
9. Childhood obesity: a public health problem: rewrite this whole section. It needs to summarise the key findings of the study and the immediate impact of the results
10. Genetic and environmental aspects: rewrite the first paragraph on page 7 from lines 1-8. There is some great information there but it requires rewriting to flow better. There are a number of inconsistencies there too e.g. change forty percent to 40%, and remove the dates from after the references
11. Breastfeeding: please include gaps between the words

Conclusion
12. Please amend this does not make sense

Minor essential revisions
Abstract
1. Background: it would read better if you changed the first sentence to:
Overweight and obesity
2. Methods: in the first sentence I would suggest removing "each infant's" as it is implied
3. Methods: it would read better if you changed the fourth sentence to:
overweight and/or obesity
4. Methods: the term body mass index does not require capitalisation
5. Methods: please rewrite the last sentence
6. Results: as above, please amend overweight/obesity as necessary
7. Results: add spaces, so that it reads: [95% CI] to all
8. Results: in the second sentence, please add a space before 1.15
9. Results: include the duration of breastfeeding in brackets
10. Conclusions: add a space in page 2, line 10 between obesity and was
11. Conclusions: add spaces in the last sentence

Background
12. To the whole section: add a space between references and words
14. On page 3, line 1, change “to” to “for”

Methods
15. To the whole section: add a space between references and words
16. Variables: on page 4, line 6 change the capital “K” to a small one in kilogram
17. Variables: the term body mass index does not require capitalisation
18. Variables: please add punctuation to the second paragraph, beginning on page 4, line 9
19. Statistical analysis: remove “then” from page 4, line 25 – relating to logistic regression

Results
20. General characteristics of the sample: in the fourth sentence, extend overweight/obesity to overweight and/or obesity
21. Stratification of children by breastfeeding or weaned at 12 months: the first sentence is redundant, or should be reworded
22. Stratification of children by breastfeeding or weaned at 12 months: add whether these outcomes were statistically significant or not
23. Stratification of children by breastfeeding or weaned at 12 months: reword and combine sentences 3 and 4
24. Stratification of children by breastfeeding or weaned at 12 months: on page 6, line 6, clarify “birth via artificial delivery”
25. Stratification of children by breastfeeding or weaned at 12 months: on page 6, line 8, what do you mean by weaned before 12 months? Does it mean ceased breastfeeding? If so, please state. Weaning means the introduction of foods other than breast milk or infant formula
26. Stratification of children by breastfeeding or weaned at 12 months: on page 6, line 13, include what shorter periods actually means
27. Stratification of children by breastfeeding or weaned at 12 months: on page 6, line 15, please define the term “weaned”. Refer to the suggestion above

Discussion
28. To the whole section: add a space between references and words
29. To the whole section: clarify the term weaned. Refer to the suggestion in “Results”

Abbreviation
30. Please remove the section “Abbreviation” from page 10, line 6 as it is not necessary

References
31. Remove capitalisation of reference 8
Tables
32. Abbreviations used in the tables should be added below the tables. This applies for all tables and the flow diagram
33. Please explain the difference between “N” and “n” for the reader
34. Make sure there is consistency with terms, namely p values; it is in italics in the paper and other tables except in Tables 3 and 4

Discretionary revisions

Abstract
1. Methods: in the third sentence, a comma could be added after “demographic variables”
2. Results: other papers in BMC Pregnancy & Childbirth use the notation “:” after CI, so that it would read “95% CI:”

Background
3. Remove “of life” from page 3, line 9

Methods
4. Variables: use “g” for grams, “kg” for kilograms and “cm” for centimetres”, these are universal units
5. Statistical analysis: I would reword the first sentence to something like: Initially, sample characteristics were compared by breastfeeding …
6. Statistical analysis: in the second sentence, I would reword it as: Effect modifying factors were then evaluated …

Results
7. To the whole section: expand overweight/obesity to overweight and/or obesity
8. General characteristics of the sample: in the first sentence, perhaps change “first year of life” to: 12 months. It is then consistent and flows better with the following sentence
9. Stratification of children by breastfeeding or weaned at 12 months: other papers in BMC Pregnancy & Childbirth use the notation “:” after CI, so that it would read "95% CI:"

Discussion
10. To the whole section: expand overweight/obesity to overweight and/or obesity where applicable

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published
Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests: I declare that I have no competing interests.