Reviewer's report

Title: Relationship between Maternal Obesity and Prenatal, Metabolic Syndrome, Obstetrical and Perinatal Complications of Pregnancy in Indiana, 2008-2010

Version: 3 Date: 29 April 2015

Reviewer: Dagfinn Aune

Reviewer's report:

This is a large population-based study of maternal BMI and various pregnancy complications. Most of the results are as expected, however, some modifications of the presentation of the results could make the results clearer. I think the results are interesting and should be published, but some minor errors below needs correction.

Line 40: sedentary lifestyles

Line 54: For Indiana, obesity is costly, and medical costs are projected to increase to $7 billion by 2018.

Line 66: Please clarify if weight and height was measured or self-reported and whether they relate to pre-pregnancy or early pregnancy anthropometric measures.

Line 96-101: different font than the remaining text.

Line 121: should the upper CI be 1.18 and not 1.118?

Line 222:; however, the latter was observed only in crude analyses

Line 228-229: Some studies attribute this relationship to macrosomic infants necessitating ....

Line 235: delete “s” after is

Line 256-257: The data for infection from this study is in contrast to previous studies on the topic – Abenhaim et al, 2007, Sebire et al, 2001, Nohr, 2009. This needs a little more discussion I think.

Line 265: suggest to rephrase the sentence with a different word than “detrimental”

Reference 18: different font than the rest of the text
Reference 45: grey font

Do the authors have data on preeclampsia as well, not only eclampsia?
Any data on macrosomia, large/small for gestational age, intrauterine growth
restriction, shoulder dystocia, congenital anomalies, neonatal jaundice, neonatal hypoglycaemia, admission to neonatal intensive care unit, preterm birth (not only previous preterm birth), induction?

Table 2: is the delivery type referring to the current pregnancy?

Table 2.
I would switch the reference with regard to prenatal care so that the reference category is the non-user (No). Then it is clear that the overweight and obese women are more likely to receive prenatal care.

Table 3 and 5. Please provide the median BMI in each category of BMI.

Table 4 and Table 6.
For each outcome please make one line for the crude estimate and another line below it with the adjusted estimate. It’s better to have the ORs and the 95% CIs for each category on the same line rather than the OR above the CI. See below.

<table>
<thead>
<tr>
<th>Category</th>
<th>Crude</th>
<th>95% CI</th>
<th>Adjusted</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>0.96</td>
<td>(0.61-1.50)</td>
<td>1.02</td>
<td>(0.62-1.66)</td>
</tr>
<tr>
<td>overweight</td>
<td>2.18</td>
<td>(1.90-2.50)</td>
<td>1.84</td>
<td>(1.59-2.14)</td>
</tr>
<tr>
<td>obese</td>
<td>6.44</td>
<td>(5.69-7.28)</td>
<td>5.12</td>
<td>(4.47-5.85)</td>
</tr>
</tbody>
</table>

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

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

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