Author’s response to reviews

Title: Infant feeding practices within a large electronic medical record database

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Author’s response to reviews:

Dear Dr. Khanal,

Thank you so much for your consideration of our paper. Below are the numbered responses to each of the reviewer’s thoughtful comments. It would be a pleasure to see this paper in BMC Pregnancy and Childbirth, and we have done our best to accommodate the reviewers’ suggestions.

Sincerely,
Emily Bartsch and Karen Tu

Sheila Gephart (Reviewer 1): Thank you for your responsiveness to reviewers' critique. I found the responses reasonable and the changes have improved the manuscript. I have no other recommendations to improve the manuscript.

no changes required

Rachael Wood (Reviewer 3): This study used maternity hospital discharge records (from one hospital in Ontario) linked to subsequent well baby check up notes held in primary care electronic patient records (from selected practices across Ontario) to assess (a) the feasibility of using these data sources to identify population based information on infant feeding and (b) to examine rates of exclusive breastfeeding over time (2-6 months) and by maternal and infant characteristics.

The paper has been reviewed previously by other reviewers hence I am keeping my comments to a minimum to avoid placing an undue burden on the authors. Broadly this seems a carefully conducted study that will be worthy of publication once the following comments are addressed.
1. My main concern (echoing that of one of the previous reviewers) is that I am still unclear on some of the details of the methodology. As I read it, the methods state that the study sample was limited to infants who had at least one primary care record at age up to 750 days (8815 infants). Firstly, it is not clear why the 750 day cut off was used as the study only examined feeding status up to 6 months. This should be clarified.

--> To be more accurate, our cohort was limited to infants who had at least 1 postnatal visit by 190 days (6 months) of age in EMRALD. Among these infants we allowed records up to 750 days of age in order to capture any historical information on type of feeding and duration contained in non-Rourke progress notes, and Rourke records beyond 6 months of age in case the child was still exclusively breastfeeding. This information could be used to infer feeding status at earlier time points. For example, if a child had a Rourke record at beyond 6 months of age that indicated exclusive breastfeeding then we assumed exclusive breastfeeding at 2, 4 and 6 months as well. The text in the methods section has been revised in the first and second paragraphs to make this more clear, including the following sentence at the end of the second paragraph: “We included records up to 750 days of age in order to capture historical information on type and duration of feeding recorded in non-Rourke entries, as well as Rourke Baby Records with exclusive breastfeeding documented beyond 6 months, from which we inferred exclusive breastfeeding at earlier time points.”

2. Then, for these infants, all primary care visits up to 750 days were examined to see first if they contained a well baby check up Rourke record. For those visits specifically, automated extraction of data on infant feeding status was conducted. If no feeding data was extracted by the algorithm, and for all other visits that did not contain a Rourke record, manual chart review and extraction of feeding status where available was undertaken. Following this process a total of 7771 infants had at least one record with infant feeding status available at age up to 750 days. No information on the total number of visits is presented.

--> We have now specified the total number of visits, as well as the number of visits included in our study representing infants with Rourke Baby Records and infants whose information was abstracted from the chart.

--> We have added this section to the results, paragraph 1: “The total number of visits for these infants was 110,794. In our study, 25,230 visits were included from infants with a Rourke Baby Record, and 54,856 visits were abstracted from the chart.”

3. It is then unclear in the paper which visits were used to determine infant feeding status at the specific ages presented. For example, the authors' response to the previous reviewer suggests that, to determine feeding status at 2 months, it was any visits at age 60-121 days, with the visit closest to 60 days chosen for infants who had >1 visit in that age window. It is particularly unclear which visits were used to determine feeding status at 6 months. The paper suggests it was visits from 182 days but the upper age limit is unclear. Surely it wasn't 750 days?

--> We now explain in the methods, bottom of paragraph 3: “We chose the visit closest to but not preceding the target age for each time point. For children who did not have visits at all three time points, we estimated missing feeding status based on that documented at future visits. For
example, if a child had a visit at 60 days then their 2 month feeding status was determined from that visit. If, however, their next visit was not until 182 days or more, then we determined if they were currently exclusively breastfeeding (from a Rourke record) or were previously exclusively breastfeeding (from a progress note) and we inferred that they were exclusively breastfeeding at 4 and 6 months.” It is possible that we miscaptured exclusive breastfeeding by allowing retrospective feeding information to infill gaps at 2, 4 or 6 months. For this reason, we conducted a complete case analysis limited to infants with current feeding status documented in Rourke records at each of the 3 time points and found very similar rates of exclusive breastfeeding. We revised the sentence referring to this analysis as follows: “To assess possible misclassification of exclusive breastfeeding as a result of inferring feeding status from future visits, we performed a complete case analysis of infants who had documented feeding at all three time points.”

4. The first sentence of the results introduces a new upper age limit of 190 days but it is unclear what that refers to. This should definitely be clarified in the paper.

--> This has now been introduced in the methods. Please see our response to comment 1.

My only other substantive comment relates to the first sentence of the conclusions. This introduces data on overall (rather than exclusive) breastfeeding that are not presented elsewhere in the paper. The authors should either present full results on overall as well as exclusive feeding (eg by adding an additional table effectively replicating Table 2 but showing rates of overall breastfeeding - which I think would be helpful) or remove this statement.

--> Thank you for pointing this out. This sentence has been revised to reflect the data presented in our paper, as follows: “Among infants registered within a large primary care EMR, the rate of exclusive breastfeeding declined from 40% to 25% between two and six months of age.”