## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### **ARTICLE DETAILS**

| TITLE (PROVISIONAL) | Cohort Profile: South Australian Aboriginal Birth Cohort (SAABC); a prospective longitudinal birth cohort   |
|---------------------|---|
| AUTHORS             | Jamieson, Lisa M.; Hedges, Joanne; Ju, X; Kapellas, Kostas; Leane, Cathy; Haag, Dandara; Santiago, Pedro; Macedo, Davi; Roberts, Rachel; Smithers, Lisa |

### **VERSION 1 – REVIEW**

| REVIEWER        | Zhong-Cheng Luo   |
|-----------------|---|
|                 | Lunenfeld-Tanenbaum Research Institute, Mount Sinai Hospital, |
|                 | University of Toronto, Canada                                 |
| REVIEW RETURNED | 26-Aug-2020   |

| GENERAL COMMENTS | The authors described the South Australian Aboriginal Birth Cohort (SAABC), including study design and follow-up data collection so far and future follow-up plans, and some main findings from the published works from the Cohort. In general, the paper is well-written. I have no major concerns.     |
|------------------|---|
|                  | I have only some minor edits/comments: Page 3, Line 35, delete the duplicate word "among". Page 3, Line 24, are you sure "breastfeeding >24 months" is correct? It is rare for infants being breastfed at 24 months. Page 3, Line 54, should replace "greater understanding" with "better understanding". |
|                  | Page 5, line 5, should replace "high levels of the disease" with "high prevalence of the disease"   |
|                  | Page 6, line 40, you need only one word "years", not four words "years" in the sentence.  |
|                  | Page 6, line 42, should replace "covid-19" with "COVID-19" Page 7, line 12, should specify the software name and version,   |
|                  | SAS? Version? Page 8, line 9, "breastfeeding >24 months"? are you sure?   |

| REVIEWER        | Prof Louise Maple-Brown Menzies School of Health Research, Australia  |
|-----------------|---|
|                 | I currently collaborate and have previously published with both the first author and the fourth author. I have not been involved in any way with the current study. |
| REVIEW RETURNED | 01-Sep-2020   |

| GENERAL COMMENTS | Thank you for this well presented cohort profile.  |
|------------------|--|
|                  | In this profile, the authors summarise very nicely all findings of the cohort to date. No new data nor new findings are presented. |

I have some comments for the authors' consideration:

- 1. Four aims are presented for the study, three of which relate to dental disease and one of which relates to other, non-dental, health-related factors and conditions. However the rationale for the study that is outlined in the introduction, presents a rationale for the dental aims only. There is no rationale presented for the final aim, that is "to document social, behavioural, cognitive, anthropometric, dietary and educational attainment over time". It would be important to include details regarding the rationale of this final aim.
- 2. The authors note that a considerable strength of the study is the Aboriginal community engagement, involvement and partnership, including an Aboriginal Reference Group. Could the authors please clarify if a member of the Aboriginal Reference Group and/or partner organisation/s contributed as a co-author to this manuscript? I note that JH is a Senior Aboriginal research officer at the lead research institute.
- 3. Could the authors clarify if Figure 1 and related tables meet the relevant recommendations of CONSORT and STROBE? I found Fig 1 a little confusing as it didn't mention the early childhood caries intervention I suggest that it would be helpful to include that and to show the immediate and delayed intervention groups on the Figure.

| REVIEWER        | Oyelola Adegboye.PhD                               |  |
|-----------------|--|--|
|                 | Australian Institute of Tropical Health & Medicine |  |
|                 | James Cook University,                             |  |
|                 | Townsville QLD 4811 AUSTRALIA                      |  |
| REVIEW RETURNED | 09-Sep-2020  |  |

# **GENERAL COMMENTS**

South Australian Aboriginal Birth Cohort (SAABC) is a very interesting longitudinal study and promising research project. The fact that two-thirds of eligible Indigenous population were captured is a plus for this project.

I was wondering why parity was not included in the variables included in this study. It will be interesting to know if these children were from the women's first pregnancy as well as the number of children each woman had (at least for those older than 24 years). Page 6 lines 28-35: Provide details of the intervention strategies, how the two intervention groups were divided (immediate and delayed), the sample size of each group etc.

Page 7: line 1-13: There is no information on the data analysis carried out (or to be conducted) except sudden introduction of missing imputation and SAS procedure (proc analysis). The authors did not even specify the software used. The authors should explicitly describe the missingness pattern--variables with missing data and by how much before imputation.

Page 7 line 21: The authors should provide more detail on the self-reported questionnaire. Was it based on a published questionnaire? Describe the questionnaire items?

#### **VERSION 1 – AUTHOR RESPONSE**

### Response to Reviewer 1

1. Page 3, Line 35, delete the duplicate word "among". AUTHOR RESPONSE: Done.

- 2. Page 3, Line 24, are you sure "breastfeeding >24 months" is correct? It is rare for infants being breastfed at 24 months. AUTHOR RESPONSE: It is not at all rare for Indigenous children to be breastfed for 24+ months; in fact, it is encouraged because of the many benefits of prolonged breastfeeding on child wellbeing.
- 3. Page 3, Line 54, should replace "greater understanding" with "better understanding". AUTHOR RESPONSE: Done
- 4. Page 5, line 5, should replace "high levels of the disease" with "high prevalence of the disease". AUTHOR RESPONSE: Done
- 5. Page 6, line 40, you need only one word "years", not four words "years" in the sentence. AUTHOR RESPONSE: Done
- 6. Page 6, line 42, should replace "covid-19" with "COVID-19". AUTHOR RESPONSE: Done
- 7. Page 7, line 12, should specify the software name and version, SAS? Version? AUTHOR RESPONSE: Done.
- 8. Page 8, line 9, "breastfeeding >24 months"? are you sure? AUTHOR RESPONSE: Yes, breastfeeding >24 months is promoted among Indigenous Australian families.

### Response to Reviewer 2

- 1. Four aims are presented for the study, three of which relate to dental disease and one of which relates to other, non-dental, health-related factors and conditions. However the rationale for the study that is outlined in the introduction, presents a rationale for the dental aims only. There is no rationale presented for the final aim, that is "to document social, behavioural, cognitive, anthropometric, dietary and educational attainment over time". It would be important to include details regarding the rationale of this final aim. AUTHOR RESPONSE: Good point. Rationale for final aim now provided. Page 4, Paragraph 3.
- 2. The authors note that a considerable strength of the study is the Aboriginal community engagement, involvement and partnership, including an Aboriginal Reference Group. Could the authors please clarify if a member of the Aboriginal Reference Group and/or partner organisation/s contributed as a co-author to this manuscript? I note that JH is a Senior Aboriginal research officer at the lead research institute. AUTHOR RESPONSE: We have now invited the Chair of the study's Aboriginal Reference Group, Darug Elder Cathy Leane, to be a co-author. Cathy made some comments regarding the breastfeeding >24 months findings, which have now been incorporated. Page 9, Paragraph 2.
- 3. Could the authors clarify if Figure 1 and related tables meet the relevant recommendations of CONSORT and STROBE? I found Fig 1 a little confusing as it didn't mention the early childhood caries intervention I suggest that it would be helpful to include that and to show the immediate and delayed intervention groups on the Figure. AUTHOR RESPONSE: Figure now amended to include immediate and delayed intervention points.

## Response to Reviewer 3

1. I was wondering why parity was not included in the variables included in this study. It will be interesting to know if these children were from the women's first pregnancy as well as the number of children each woman had (at least for those older than 24 years). AUTHOR RESPONSE: We did collect parity at baseline. The prevalence of mothers having their first child was 38.5%. This now added to the manuscript. Page 9, Paragraph 2.

- 2. Page 6 lines 28-35: Provide details of the intervention strategies, how the two intervention groups were divided (immediate and delayed), the sample size of each group etc. AUTHOR RESPONSE: Done in amended Figure.
- 3. Page 7: line 1-13: There is no information on the data analysis carried out (or to be conducted) except sudden introduction of missing imputation and SAS procedure (proc analysis). The authors did not even specify the software used. The authors should explicitly describe the missingness pattern-variables with missing data and by how much before imputation. AUTHOR RESPONSE: Further details now provided. Page 6, Paragraph 4.
- 4. Page 7 line 21: The authors should provide more detail on the self-reported questionnaire. Was it based on a published questionnaire? Describe the questionnaire items? AUTHOR RESPONSE: We have implemented 5 questionnaires to date; most items based on those used in other national surveys of child health in Australia, for example, the Longitudinal Study of Indigenous Children, the National Child Oral Health Survey. This information now added to manuscript. Page 8, Paragraph 2.

#### **VERSION 2 - REVIEW**

| REVIEWER        | Zhong-Cheng Luo   |
|-----------------|---|
|                 | Lunenfeld-Tanenbaum Research Institute, Mount Sinai Hospital, |
|                 | University of Toronto, Canada                                 |
| REVIEW RETURNED | 27-Nov-2020   |

| GENERAL COMMENTS | Methods  |
|------------------|--|
|                  | Page 7, line 55, what is "dmft"? If it is a shortcut, you need to include the full name somewhere, and the shortcut should be CAPITAL. |
|                  | Additional minor edits:  |
|                  | You use the term "child age" in numerous places throughout the   |
|                  | manuscript, and in most cases, the word "child" is unnecessary.  |
|                  | Abstract (Page 3):   |
|                  | Replace "At child age 3 years" with "At age 3 years"   |
|                  | Replace "among those exposed to " with "among children exposed to"   |
|                  | Add "a" before "better understanding of"   |
|                  | Introduction   |
|                  | Page 5, add "and" before "growth outcomes"   |
|                  | Page 6, replace "greatest" with "highest"  |

| REVIEWER        | Oyelola Adegboye.PhD James Cook University, Australia |
|-----------------|---|
| REVIEW RETURNED | 30-Nov-2020   |

| GENERAL COMMENTS | The authors have greatly revised this manuscript, I have few comments on the structure of the text.  |
|------------------|--|
|                  | <ol> <li>The parts of the introduction describing "South Australian Aboriginal Birth Cohort study" should be named "Study design."</li> <li>The authors could include a "Methods" section with the following subsections "Study design", "Cohort description" and "Statistical analysis" accordingly in that order.</li> </ol> |

#### **VERSION 2 – AUTHOR RESPONSE**

### Response to Reviewer 1:

- 1. Methods: Page 7, line 55, what is "dmft"? If it is a shortcut, you need to include the full name somewhere, and the shortcut should be CAPITAL. AUTHOR RESPONSE: Dmft now defined in the text.
- 2. You use the term "child age" in numerous places throughout the manuscript, and in most cases, the word "child" is unnecessary. AUTHOR RESPONSE: Good point. 'Child age' replaced by 'age' where appropriate.
- 3. Abstract (Page 3): Replace "At child age 3 years" with "At age 3 years". AUTHOR RESPONSE: Done.
- 4. Abstract; Replace "among those exposed to "with" among children exposed to". AUTHOR RESPONSE: Done.
- 5. Abstract; Add "a" before "better understanding of". AUTHOR RESPONSE: Done.
- 6. Introduction; Page 5, add "and" before "growth outcomes". AUTHOR RESPONSE: Done.
- 7. Introduction; Page 6, replace "greatest" with "highest". AUTHOR RESPONSE: Done.

#### Response to Reviewer: 3

- 1. The parts of the introduction describing "South Australian Aboriginal Birth Cohort study" should be named "Study design." AUTHOR RESPONSE: Done.
- 2. The authors could include a "Methods" section with the following subsections "Study design", "Cohort description" and "Statistical analysis" accordingly in that order. AUTHOR RESPONSE: Done.