

## PEER REVIEW HISTORY

BMJ Paediatrics Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Responding to the changing burden of disease for children and adolescents in modern Britain: the RCPCH State of Child Health Report 2017
<b>AUTHORS</b>	Viner, Russell; Arkell, Emily; Ashe, Melissa; Simpson, Melanie

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Blair, Mitch Imperial College London UK Competing interests: I have already written a review for Archives of Diseases of Childhood on this report and have cited this
<b>REVIEW RETURNED</b>	19-Sep-2017

<b>GENERAL COMMENTS</b>	<p>This article summarises some of the key issues raised in the State Of Child Health. It has chosen maternal health, breastfeeding, obesity, alcohol and tobacco use and inequalities. It summarises some of the responses from each of the four nations in the UK and suggests some policy and practice pointers. The problem with this article is that in its attempt to summarise a very large document and some of the key messages, I think it falls short in terms of clear messages to the reader, either with too generalised a statement or lack of specificity on some of the key issues.</p> <p>I would suggest a number of possible amendments which could improve the article and its flow. Firstly, page 4, paragraph 2, re the weight trajectories of children; the evidence base is probably stronger for intervention in pregnancy and the first years of life than it is in identifying a trajectory, which may be too late in primary and secondary school. Growth measurements are taken at birth, 6-8 weeks and a two years of age and these are possibly missed opportunities for looking at early trajectories to obesity and should be mentioned even if the feasibility issues are variable across the different countries.</p> <p>Page 4, paragraph 2. The sentence "it is crucial that governments consider the impact to CYP in all of their policy making" I would suggest needs further expansion in terms of fiscal, housing, early education, etc. to aid the readers orientation.</p> <p>Page 5, section on maternal health, paragraph 2. The effects of smoking on the infant are much wider than has been stated in this paragraph and should include birth weight, prematurity and lung disease.</p> <p>Re: breastfeeding, page 5. Suggest replace first sentence that... promotes breastfeeding as the optimal method in which to improve child development and reduce health costs. The data show only 23% of mothers in Northern Ireland and 27% of mothers in Scotland... (figure 2) add in which is a lost, low cost opportunity to optimise child health and development.</p> <p>Page 6, paragraph 1. Suggest expanding sentence on the reasons behind the UK's low breastfeeding rates rather than the bland</p>
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	<p>statement “remain complex.”</p> <p>Paragraph 2 and 3 should be reversed.</p> <p>Page 7. Suggest replacing paragraph, assessing and recognising... at the end of that section.</p> <p>Next section Alcohol and Tobacco suggest reversing the title to Tobacco and Alcohol to reflect the subsequent paragraphs.</p> <p>Page 10. Re: four nations approach, suggest adding in sentence “there is no doubt that strengthening of routine data collection should be a priority to allow key child health issues to be closely monitored and linked to policy initiatives with appropriate process and outcome measures.”</p> <p>Cite - Themes emerging from State of Child Health: UK and Australia. Blair M, Hiscock H. Arch Dis Child. 2017 Jul 22. pii: archdischild-2017-312875. doi: 10.1136/archdischild-2017-312875. [Epub ahead of print]</p> <p>I would suggest that a stronger attention to stylistic differences in the article might strengthen the ease of reading and refine the messages more clearly for the intended audience.</p>
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<b>REVIEWER</b>	<p>Rajmil, Luis</p> <p>IMIM-Hospital del Mar Institute of biomedical Research. Barcelona, Spain</p> <p>Competing interests: No conflicts of interest to declare</p>
<b>REVIEW RETURNED</b>	22-Sep-2017

<b>GENERAL COMMENTS</b>	<p>The manuscript “Responding to the changing burden of disease for children and adolescents in modern Britain: the RCPCH State of Child Health Report 2017” analyzes a topic of great interest and actuality, analyzing the evolution in the last 20 years on indicators of maternal health, breastfeeding, obesity, alcohol and tobacco. The main focus is on child poverty and health inequalities, and outline key evidence-based response the UK must make to improve health and well-being for its children and young people.</p> <p>In my opinion the manuscript needs some revision to improve its presentation.</p> <p>Major changes</p> <p>1) It seems that the manuscript was based on the “State of Child Health Report 2017” (<a href="http://www.rcpch.ac.uk/state-of-child-health">http://www.rcpch.ac.uk/state-of-child-health</a> ) nevertheless, and curiously, this report was not cited as a reference within the manuscript.</p> <p>2) The manuscript is presented as a review paper, then it would be good to present (preferable in a separate section of methods) the type of review, the methods followed by authors to collect information, and the process of data analysis. This section would improve the presentation and highlight the important work done by the authors.</p> <p>Minor changes</p> <p>3) The abstract could be improved extending a little bit on the source of data and adding some of the main results. Some keywords could also be added such as social inequalities, child health, etc.</p> <p>4) References should also be revised and edited, ex: Ref N°2: Lancet 2014 in press?. Ref N°17 year?. Some references are not complete, etc.</p> <p>5) Although authors approach social inequalities as a main issue (page 9 line 19: “Spotlight on inequality”), maybe it would be more in</p>
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	depth highlighted this issue. Almost all indicators showed social gradients except alcohol consumption. Then it would be of interest to include some idea about this issue and to include a proposal on how to reduce inequalities besides approaching health behaviours.
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## VERSION 1 – AUTHOR RESPONSE

### Reviewer: 1

Reviewer name: Mitch Blair

This article summarises some of the key issues raised in the State Of Child Health. It has chosen maternal health, breastfeeding, obesity, alcohol and tobacco use and inequalities. It summarises some of the responses from each of the four nations in the UK and suggests some policy and practice pointers. The problem with this article is that in its attempt to summarise a very large document and some of the key messages, I think it falls short in terms of clear messages to the reader, either with too generalised a statement or lack of specificity on some of the key issues.

I would suggest a number of possible amendments which could improve the article and its flow.

**Response** – really helpful comments thank you, and we've used them to improve the document.

#### *Point 1.*

*Firstly, page 4, paragraph 2, re the weight trajectories of children; the evidence base is probably stronger for intervention in pregnancy and the first years of life than it is in identifying a trajectory, which may be too late in primary and secondary school. Growth measurements are taken at birth, 6-8 weeks and a two years of age and these are possibly missed opportunities for looking at early trajectories to obesity and should be mentioned even if the feasibility issues are variable across the different countries.*

**Response:** We agree and have modified the discussion to note this:

" However data are lacking on the weight trajectories of these children from birth and in the years before school entry and then again as they transition into adolescence and adulthood."

*Point 2. Page 4, paragraph 2. The sentence "it is crucial that governments consider the impact to CYP in all of their policy making" I would suggest needs further expansion in terms of fiscal, housing, early education, etc. to aid the readers orientation.*

**Response:** We have modified the sentence as follows:

" It is crucial that governments consider the impacts to CYP in their policy making across all sectors, particularly fiscal policy, housing and education as well as health and social care."

*Point 3. Page 5, section on maternal health, paragraph 2. The effects of smoking on the infant are much wider than has been stated in this paragraph and should include birth weight, prematurity and lung disease.*

**Response:** We noted in the first paragraph of this section that " Smoking during pregnancy is one of the most important modifiable risk factors for improving infant health." In the second part, we were referring specifically to the relationship of deprivation with a range of factors – particularly smoking during pregnancy and low breastfeeding initiation. We have reworded this to improve clarity:

" Given the strong relationship between social deprivation and a range of major risk factors for poor child health, including smoking in pregnancy and lower breastfeeding rates(7), there is a need for

joined up national public health campaigns that promote good health and wellbeing during and after pregnancy and use graduated universalist approaches to ensure a focus on the most deprived."

*Point 4. Re: breastfeeding, page 5. Suggest replace first sentence that... promotes breastfeeding as the optimal method in which to improve child development and reduce health costs. The data show only 23% of mothers in Northern Ireland and 27% of mothers in Scotland... (figure 2) add in which is a lost, low cost opportunity to optimise child health and development.*

**Response:**

" Promoting breastfeeding is therefore a low cost opportunity to optimise our children's health and development."

*Point 5. Page 6, paragraph 1. Suggest expanding sentence on the reasons behind the UK's low breastfeeding rates rather than the bland statement "remain complex."*

*Paragraph 2 and 3 should be reversed.*

**Response:** We have reversed the order of paragraphs as suggested. We agree that the 'remain complex' statement is rather bland – however we believe that a full discussion of why the UK has such a poor record on breastfeeding would require some length and would potentially distract on our focus on outcomes rather than causes. Thus we feel this is beyond the scope of this document.

*Point 6. Page 7. Suggest replacing paragraph, assessing and recognising... at the end of that section.*

**Response:** Done.

*Point 7. Next section Alcohol and Tobacco suggest reversing the title to Tobacco and Alcohol to reflect the subsequent paragraphs.*

**Response:** Done

*Point 8. Page 10. Re: four nations approach, suggest adding in sentence "there is no doubt that strengthening of routine data collection should be a priority to allow key child health issues to be closely monitored and linked to policy initiatives with appropriate process and outcome measures."*

**Response:** We have added this sentence in its entirety at the end of this section.

*Point 10. Cite - Themes emerging from State of Child Health: UK and Australia. Blair M, Hiscock H.*

*Arch Dis Child. 2017 Jul 22. pii: archdischild-2017-312875. doi: 10.1136/archdischild-2017-312875. [Epub ahead of print]*

**Response:** We have now cited this most useful reference and noted the existence of the Australian 'headline indicators'

## Reviewer: 2

Reviewer name: Luis Rajmil

Institution and Country: IMIM-Hospital del Mar Institute of biomedical Research. Barcelona, Spain

The manuscript "Responding to the changing burden of disease for children and adolescents in modern Britain: the RCPCH State of Child Health Report 2017" analyzes a topic of great interest and actuality, analyzing the evolution in the last 20 years on indicators of maternal health, breastfeeding, obesity, alcohol and tobacco. The main focus is on child poverty and health inequalities, and outline key evidence-based response the UK must make to improve health and well-being for its children and young people.

In my opinion the manuscript needs some revision to improve its presentation.

Major changes

*Point 1) It seems that the manuscript was based on the "State of Child Health Report 2017" (<http://www.rcpch.ac.uk/state-of-child-health>) nevertheless, and curiously, this report was not cited as a reference within the manuscript.*

**Response:** We had not noted this and thank the reviewer. It is now referenced.

*Point 2) The manuscript is presented as a review paper, then it would be good to present (preferable in a separate section of methods) the type of review, the methods followed by authors to collect information, and the process of data analysis. This section would improve the presentation and highlight the important work done by the authors.*

**Response:** We note the relevant comment by the Associate Editor. We have included a very brief note on the methodology used in the SOCH Report itself as there is no relevant methodology for this review. We included the following sentence in the first paragraph describing SOCH:

" Indicators were chosen by a panel of experts, based upon consultation with a panel of CYP from the RCPCH @Us Network about areas important to CYP and families. Key considerations were that i) indicators related to major areas of health burden in the UK; ii) authoritative published data were available for at least 2 of the 4 UK countries; and iii) historical data were available over the past 2 decades or longer."

Minor changes

*Point 3) The abstract could be improved extending a little bit on the source of data and adding some of the main results. Some keywords could also be added such as social inequalities, child health, etc.*

**Response:** We feel that abstracts for a review such as this are little relevant. Keywords were not requested.

*Point 4) References should also be revised and edited, ex: Ref N°2: Lancet 2014 in press?. Ref N°17 year?. Some references are not complete, etc.*

**Response:** We thank the reviewers for noting these issues. We have corrected ref 3 (which was the one noted as In Press). Other references seem to lack the year in the Endnote generated bibliography using the standard Vancouver style; we have changed the style to BMJ style – which has corrected this.

*Point 5) Although authors approach social inequalities as a main issue (page 9 line 19: “Spotlight on inequality”), maybe it would be more in depth highlighted this issue. Almost all indicators showed social gradients except alcohol consumption. Then it would be of interest to include some idea about this issue and to include a proposal on how to reduce inequalities besides approaching health behaviours.*

**Response:** We have expanded the discussion of the origins of health inequalities and how they may affect health in the first paragraph of the section 'Spotlight on inequalities'. We believe that an expanded discussion of methods to reduce health inequalities is beyond the scope of this paper.