

## 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>	The Climate crisis and child health inequity
<b>AUTHORS</b>	Gauffin, Karl Spencer, Nick

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Reviewer name: Dr. Marina Romanello Institution and Country: University College London Institute for Global Health, United Kingdom of Great Britain and Northern Ireland Competing interests: None
<b>REVIEW RETURNED</b>	07-Mar-2022

<b>GENERAL COMMENTS</b>	<p>The article by Emeritus Professor Nick Spencer and Dr Karl Gauffin addresses one of the most important issues around climate change and health: the implications on children's health and on exacerbating inequities. I am delighted to see such an article proposed for the BMJ Paediatrics Open. Several messages that emerge from this article: Children are particularly vulnerable and disproportionately affected by climate change; Climate change exacerbates inequities in child health; The framing around "political determinants of health" can help better expose and understand the drivers; Paediatricians have a key role to play in protecting the health of children from climate change; Paediatricians should work closely with children to address some of these issues.</p> <p>These messages are similar to the ones in our recently published paper, <a href="https://doi.org/10.1111/jpc.15757">https://doi.org/10.1111/jpc.15757</a>, and perhaps the most novel ones are around the political determinants of health, and the role that Paediatricians might play. Strengthening the focus on these two can make this article more novel and impactful, and help drive the much-needed engagement of paediatricians in protecting the health of children from climate change.</p> <p>Specific comments:</p> <ul style="list-style-type: none"><li>- I would suggest replacing the term "global heating" with "climate change" throughout the text. While these terms are sometimes used interchangeably, the latter is broader, capturing not only the increase in average global temperatures, but also the multiple environmental changes that are happening as a result of increased greenhouse gas emissions. Therefore, the term "climate change" is more suitable in reflecting the multidimensional health impacts of the climate crisis.</li><li>- Line 5, page 3: Attribution of food insecurity and poverty to climate change is challenging, particularly since both food insecurity and poverty are so multifactorial. Reference 2 in particular makes this clear. The language of this sentence could benefit from better capturing the difference between the increasing climate risks, and the observed impacts.</li><li>- Line 6, page 3: Similarly to the comment above, the issue about climate change-related migration is also nuanced. As the Lancet Commission on migration lays out, "The effects of climate change on</li></ul>
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	<p>migration are largely uncertain because migration is driven by complex multicausal processes, which also include social, economic, political, and demographic dimensions. These dimensions impact on each other and can be driven by the effects of climate change." (<a href="https://doi.org/10.1016/S0140-6736(18)32114-7">https://doi.org/10.1016/S0140-6736(18)32114-7</a>). Reference 2 in the manuscript also makes this uncertainty clear: "Few articles investigated migration as a result of climate change and its impact on child health, but it is expected that losses of sustainable water sources due to sea level rise and flooding could be one of the key drivers of migration. Examining the migration pattern in response to natural disasters in Bangladesh, Penning-Rowsell and colleagues concluded that migration occurred either for fear of safety or for economic reasons, but that permanent migration was only seen as a last resort." Here too, I would recommend the language is changed to reflect this uncertainty. It is important to note, however, that there is more certainty about the future risk of migration in response to climate shocks, so it could be useful to highlight that too.</p> <ul style="list-style-type: none"> <li>- The paragraphs starting line 13 and line 30 in page 3 would benefit from referencing.</li> <li>- Line 14, page 4, reads: "Protection of the planet and future public and child health will require health professionals, and paediatricians in particular, to actively contribute to practices, policies and programmes robust enough to ensure reduction of global heating is not derailed in the interest of profit". Ensuring climate action is not derailed in the interest of profit is perhaps the biggest single challenge of climate action. While paediatricians, in protecting children's health, are well placed to contribute to ensuring this, it would be good for the author to suggest specific ways in which they might do so. The detail provided in the subsequent lines refer to their role as "public health educators and advocates". While this is definitely important, it is unlikely that just through education and advocacy paediatricians might be able to go against some of the strongest financial interests that fuel climate crisis we are in. It would be good if the author could provide more detail about how paediatricians might get involved. This might work as a "call to action" to the paediatricians who read this journal.</li> <li>- It is important children's voices are included in the decision making process. The paragraph starting line 38, page 4 only refers to working with children in hospitals, clinics and local communities, offering examples for them, and opportunities for discussions. I would invite the author to add a line or two about the importance of incorporating the voice and views of children and young people in decision making processes.</li> </ul>
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<b>REVIEWER</b>	<p>Reviewer name: Dr. Peter Sly          Institution and Country: United Kingdom of Great Britain and Northern Ireland          Competing interests: none</p>
<b>REVIEW RETURNED</b>	27-Feb-2022

<b>GENERAL COMMENTS</b>	<p>In accepting to undertake this review, it was not make clear what the purpose of this editorial was. I have considered it as a "stand alone" manuscript. The climate crisis is certainly a great threat to children, but I'm not sure it is "the greatest threat" as stated in the opening sentence. Environmental, social and political change also threaten the health and well being</p>
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### VERSION 1 – AUTHOR RESPONSE

Dear Editor,

We are grateful for the helpful and constructive comments in response to our manuscript. The offer to increase the number of references is most welcome and we have taken advantage of it. We haven't included bullet points but would be happy to do so if you felt it essential. An alternative

might be a box or panel. (We highlight our responses in red)

**Response to reviewer: 1**

We acknowledge the need for caution in designating climate change as the 'greatest threat' and have revised the sentence to state 'one of the greatest threats'.

**Response to reviewer: 2**

Many thanks for the helpful and supportive comments and drawing our attention to your recent paper which we have referenced. Our responses to specific comments are as follows:

1. These messages are similar to the ones in our recently published paper, <https://doi.org/10.1111/jpc.15757>, and perhaps the most novel ones are around the political determinants of health, and the role that Paediatricians might play. Strengthening the focus on these two can make this article more novel and impactful, and help drive the much-needed engagement of paediatricians in protecting the health of children from climate change.

WE THINK THE FIFTH PARAGRAPH DISCUSSING VESTED INTERESTS ETC. PRESENTS A STRONG MESSAGE ON THE POLITICS OF HEALTH AS IT RELATES TO CLIMATE CHANGE. WE HAVE REVISED THE OPENING SENTENCE OF THE PARAGRAPH TO STRESS THE IMPORTANCE OF RELIANCE ON FOSSIL FUELS IN THE CLIMATE-RELATED POLITICS OF HEALTH. WE HAVE STRENGTHENED THE FOCUS ON THE ROLE OF PAEDIATRICIANS AND THEIR ORGANISATIONS.

2. I would suggest replacing the term "global heating" with "climate change" throughout the text. While these terms are sometimes used interchangeably, the latter is broader, capturing not only the increase in average global temperatures, but also the multiple environmental changes that are happening as a result of increased greenhouse gas emissions. Therefore, the term "climate change" is more suitable in reflecting the multidimensional health impacts of the climate crisis.

DONE

3. Line 5, page 3: Attribution of food insecurity and poverty to climate change is challenging, particularly since both food insecurity and poverty are so multifactorial. Reference 2 in particular makes this clear. The language of this sentence could benefit from better capturing the difference between the increasing climate risks, and the observed impacts.

SEE REVISED OPENING PARAGRAPH (+NEW REFERENCE)

4. Line 6, page 3: Similarly to the comment above, the issue about climate change-related migration is also nuanced. As the Lancet Commission on migration lays out, “The effects of climate change on migration are largely uncertain because migration is driven by complex multicausal processes, which also include social, economic, political, and demographic dimensions. These dimensions impact on each other and can be driven by the effects of climate change.” ([https://doi.org/10.1016/S0140-6736\(18\)32114-7](https://doi.org/10.1016/S0140-6736(18)32114-7)). Reference 2 in the manuscript also makes this uncertainty clear: “Few articles investigated migration as a result of climate change and its impact on child health, but it is expected that losses of sustainable water sources due to sea level rise and flooding could be one of the key drivers of migration. Examining the migration pattern in response to natural disasters in Bangladesh, Penning-Rowsell and colleagues concluded that migration occurred either for fear of safety or for economic reasons, but that permanent migration was only seen as a last resort.” Here too, I would recommend the language is changed to reflect this uncertainty. It is important to note, however, that there is more certainty about the future risk of migration in response to climate shocks, so it could be useful to highlight that too.

#### ADDRESSED IN REVISED OPENING PARAGRAPH

5. The paragraphs starting line 13 and line 30 in page 3 would benefit from referencing.

#### REFERENCES ADDED

6. Line 14, page 4, reads: “Protection of the planet and future public and child health will require health professionals, and paediatricians in particular, to actively contribute to practices, policies and programmes robust enough to ensure reduction of global heating is not derailed in the interest of profit”. Ensuring climate action is not derailed in the interest of profit is perhaps the biggest single challenge of climate action. While paediatricians, in protecting children’s health, are well placed to contribute to ensuring this, it would be good for the author to suggest specific ways in which they might do so. The detail provided in the subsequent lines refer to their role as “public health educators and advocates”. While this is definitely important, it is unlikely that just through education and advocacy paediatricians might be able to go against some of the strongest financial interests that fuel climate crisis we are in. It would be good if the author could provide more detail about how paediatricians might get involved. This might work as a “call to action” to the paediatricians who read this journal.

#### WE HAVE EXPANDED THE DISCUSSION OF THE ROLE OF PAEDIATRICIANS; HOWEVER, IF APPROPRIATE, WE COULD ADD A BOX/PANEL

7. It is important children’s voices are included in the decision making process. The paragraph starting line 38, page 4 only refers to working with children in hospitals, clinics and local communities, offering examples for them, and opportunities for discussions. I would invite he

author to add a line or two about the importance of incorporating the voice and views of children and young people in decision making processes.

**PENULTIMATE PARAGRAPH REVISED TO INCORPORATE THIS IMPORTANT SUGGESTION**

We are grateful to the journal for this opportunity to publish an editorial on this important subject.

Yours sincerely, Nick Spencer and Karl Gauffin

**VERSION 2 – REVIEW**

<b>REVIEWER</b>	Reviewer name: Institution and Country: Competing interests:
<b>REVIEW RETURNED</b>	

<b>GENERAL COMMENTS</b>	
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<b>REVIEWER</b>	Reviewer name: Institution and Country: Competing interests:
<b>REVIEW RETURNED</b>	

<b>GENERAL COMMENTS</b>	
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<b>REVIEWER</b>	Reviewer name: Institution and Country: Competing interests:
<b>REVIEW RETURNED</b>	

<b>GENERAL COMMENTS</b>	
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**VERSION 2 – AUTHOR RESPONSE**

**VERSION 3 – REVIEW**

<b>REVIEWER</b>	Reviewer name: Institution and Country: Competing interests:
<b>REVIEW RETURNED</b>	

<b>GENERAL COMMENTS</b>	
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<b>REVIEWER</b>	Reviewer name: Institution and Country: Competing interests:
<b>REVIEW RETURNED</b>	

<b>GENERAL COMMENTS</b>	
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<b>REVIEWER</b>	Reviewer name: Institution and Country: Competing interests:
<b>REVIEW RETURNED</b>	
<b>GENERAL COMMENTS</b>	

**VERSION 3 – AUTHOR RESPONSE**