

## 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>	Inequalities in child health in India
<b>AUTHORS</b>	Choonara, Imti; Pappachan, Binu

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Raman, Shanti South Western Sydney Local Health District and University of New South Wales, Australia Competing interests: nil
<b>REVIEW RETURNED</b>	15-May-2017

<b>GENERAL COMMENTS</b>	<p>This is a rather big subject and I commend the authors for tackling this head on! Having said that, I wonder if the analysis and recommendations are not a trifle simplistic. There are a lot of facts stated (not always properly referenced), with little analysis. I think that “poverty, malnutrition and poor sanitation are major problems for many Indians”, so also is the status and level of empowerment of women, which affect not only their reproductive health, but also child health. Large upstream social determinants, such as poverty, illiteracy, poor status and care of women and dysfunctional health systems (India has one of the most privatised health systems in the world), are critical underlying factors that adversely affect child health in many developing countries. India is undergoing rapid demographic change as well and by 2030, India's urban population will grow to 538 million – meaning that more than half of the total population of the country will be living in urban areas. So there is far greater complexity, than this paper suggests.</p> <p>I think that the references used can be improved; there is a whole Lancet series on India, including discussions on universal health coverage (UHC). Not enough mention is made about UHC. I am not sure that this paper is making any compelling arguments that have not been made before. There is a lack of a cohesive narrative and I am not sure how to fix that.</p> <p>Specific sections</p> <p>Abstract</p> <p>Please address the broader issues I have highlighted in general comments. Change: This have been achieved by reducing poverty, malnutrition and inequalities. To “This has been achieved by ..”</p> <p>Child health is more than just mortality, perhaps a mention of the broader indices around child survival and healthy development would have been worthwhile.</p> <p>Introduction</p> <p>Reference 1 is from Wikipedia. What is BMJPO policy with respect to using Wikipedia for references? I know that we discourage students from using Wikipedia in their essays, so I would strongly suggest that we eschew Wikipedia sources for references.</p>
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	<p><b>Poverty and malnutrition</b> Last sentence: This is illustrated by the example of Kerala, which has successfully reduced poverty and malnutrition, and has the lowest child mortality rates in India (Table 2). There is no mention made of how Kerala reduced poverty and malnutrition, except a brief paragraph at the end. The table is actually a comparison of healthcare utilisation and some child health indices, so it doesn't really illustrate the sentence above.</p> <p><b>Health care provision</b> Please reference Balarajan et al[1], there are also many other papers that discuss healthcare provision, access and utilisation. A mention of the conditional cash transfer scheme JSY and its impact evaluation would be worthwhile.[2]</p> <p><b>Maternal health</b> A mention of women's status and how that links to maternal and child health could have been made here.</p> <p><b>Infancy</b> Unclear what this section is about...is it about breastfeeding or perinatal mortality? This sentence with its reference is slightly misplaced and the reference plainly unrelated: The 48 hours immediately following birth is the most crucial period of newborn survival [9].</p> <p><b>Empowerment of women</b> Again there are a couple of critical references that could have been used here, particularly Shroff's research (eg: [3])</p> <p><b>Learning from Kerala</b> I think a little more analysis of how Kerala has achieved impressive gains in maternal and child health would be welcome. How much did political will contribute? Box 1 is not referenced...is this the authors' own ideas and impression, as to how Kerala achieved MDG4? Kerala also does have it's own share of social problems, with high suicide rates among young women; so a bit more nuance would be worthwhile.</p> <p><b>References</b></p> <ol style="list-style-type: none"> <li>1. Balarajan Y, Selvaraj S, Subramanian SV. Health care and equity in India. The Lancet 2011;377(9764):505-15 doi: <a href="http://dx.doi.org/10.1016/S0140-6736(10)61894-6">http://dx.doi.org/10.1016/S0140-6736(10)61894-6</a>[published Online First: Epub Date]].</li> <li>2. Lim SS, Dandona L, Hoisington JA, et al. India's Janani Suraksha Yojana, a conditional cash transfer programme to increase births in health facilities: an impact evaluation. Lancet 2010;375:2009-23</li> <li>3. Shroff MR, Griffiths PL, Suchindran C, et al. Does maternal autonomy influence feeding practices and infant growth in rural India? Social Science &amp; Medicine 2011;73(3):447-55 doi: 10.1016/j.socscimed.2011.05.040[published Online First: Epub Date]].</li> </ol>
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<b>REVIEWER</b>	<p>Spencer, Nick University of Warwick, UK Competing interests: I am convenor of the International Network for</p>
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	Research in Inequalities in Child Health (INRICH) of which Imti Choonara is a member
<b>REVIEW RETURNED</b>	23-May-2017

<b>GENERAL COMMENTS</b>	<p>Poverty, malnutrition and deprivation of basic determinants of health, such as clean water, sanitation and shelter, continue to blight the lives (and kill) millions of children worldwide. This is despite the fact that for many years now we have known how to prevent and treat the common conditions which kill and maim poor children. This review of child health in India is a timely reminder of this unacceptable situation which is all too often ignored by paediatricians. India is an instructive case study of how important politics and government policies are to child health. As the review ably demonstrates, India's State governments have adopted very different policies since independence resulting in strikingly different child health outcomes.</p> <p>The factual information in the review is very valuable and instructive. I have one suggestion for improvement - short explanation of the Indian federal and state structure would help contextualise the information given in the review particularly for those unfamiliar with India.</p> <p>I also think it is important to stress that the states that have achieved improved child health outcomes have done so as a result of political will and policies consistently applied over a protracted period. These policies are not random or chance they are a result of political choice to improve the health of the whole population by public provision of health care, education and basic requirements for health. In this context, the authors might consider removing the word 'unfortunately' on p.5 in relation to immunisation rates and 'disappointing' on p.7 in relation to the federal government's failure to adopt similar policies to Kerala. These are neither unfortunate nor disappointing – they are deliberate political choices to favour a powerful elite and keep the mass of the population in ignorance and poverty.</p>
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## VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Comments to the Author

General Comments:

This is a rather big subject and I commend the authors for tackling this head on! Having said that, I wonder if the analysis and recommendations are not a trifle simplistic. There are a lot of facts stated (not always properly referenced), with little analysis. I think that "poverty, malnutrition and poor sanitation are major problems for many Indians", so also is the status and level of empowerment of women, which affect not only their reproductive health, but also child health. Large upstream social determinants, such as poverty, illiteracy, poor status and care of women and dysfunctional health systems (India has one of the most privatised health systems in the world), are critical underlying factors that adversely affect child health in many developing countries. India is undergoing rapid demographic change as well and by 2030, India's urban population will grow to 538 million – meaning that more than half of the total population of the country will be living in urban areas. So there is far greater complexity, than this paper suggests.

I think that the references used can be improved; there is a whole Lancet series on India, including discussions on universal health coverage (UHC). Not enough mention is made about UHC. I am not sure that this paper is making any compelling arguments that have not been made before. There is a lack of a cohesive narrative and I am not sure how to fix that. WE HAVE ADDED REFERENCES AND ADDED TEXT ABOUT UHC IN THE SECTION ON HEALTH CARE PROVISION. HAVE HOPEFULLY ADDRESSED THE NARRATIVE CONCERNS

## Abstract

Please address the broader issues I have highlighted in general comments. Change: This have been achieved by reducing poverty, malnutrition and inequalities. To “This has been achieved by ..”

Child health is more than just mortality, perhaps a mention of the broader indices around child survival and healthy development would have been worthwhile. WE HAVE ADDED A SENTENCE IN THE ABSTRACT ABOUT MORBIDITY AND CORRECTED THE GRAMMATICAL ERROR

## Specific sections

### Introduction

Reference 1 is from Wikipedia. What is BMJPO policy with respect to using Wikipedia for references? I know that we discourage students from using Wikipedia in their essays, so I would strongly suggest that we eschew Wikipedia sources for references. WE HAVE CHANGED THE REFERENCE

### Poverty and malnutrition

Last sentence: This is illustrated by the example of Kerala, which has successfully reduced poverty and malnutrition, and has the lowest child mortality rates in India (Table 2). There is no mention made of how Kerala reduced poverty and malnutrition, except a brief paragraph at the end. The table is actually a comparison of healthcare utilisation and some child health indices, so it doesn't really illustrate the sentence above. WE HAVE ADDED TEXT EXPLAINING WHAT KERALA HAS DONE

### Health care provision

Please reference Balarajan et al[1], there are also many other papers that discuss healthcare provision, access and utilisation. A mention of the conditional cash transfer scheme JSY and its impact evaluation would be worthwhile.[2] WE HAVE ADDED THESE REFERENCES AND OTHERS

### Maternal health

A mention of women's status and how that links to maternal and childhealth could have been made here. WE HAVE MOVED THE SECTION ON EMPOWERMENT OF WOMEN TO FOLLOW THAT OF MATERNAL HEALTH

### Infancy

Unclear what this section is about...is it about breastfeeding or perinatal mortality? This sentence with its reference is slightly misplaced and the reference plainly unrelated: The 48 hours immediately following birth is the most crucial period of newborn survival [9].WE HAVE CHANGED THE HEADING TO BREASTFEEDING

#### Empowerment of women

Again there are a couple of critical references that could have been used here, particularly Shroff's research (eg: [3])ADDITIONAL REFERENCES ADDED

#### Learning from Kerala

I think a little more analysis of how Kerala has achieved impressive gains in maternal and child health would be welcome. How much did political will contribute? Box 1 is not referenced...is this the authors' own ideas and impression, as to how Kerala achieved MDG4? Kerala also does have it's own share of social problems, with high suicide rates among young women; so a bit more nuance would be worthwhile. WE AGREE KERALA I NOT PERFECT BUT IT IS MUCH BETTER THAN THE REST OF INDIA. WE HAVE EXPANDED THE SECTION ON POLITICAL WILL

#### References ALL ADDED

1. Balarajan Y, Selvaraj S, Subramanian SV. Health care and equity in India. The Lancet 2011;377(9764):505 PubMed -15 doi: [http://dx.doi.org/10.1016/S0140-6736\(10\)61894-6](http://dx.doi.org/10.1016/S0140-6736(10)61894-6)[published Online First: Epub Date]].
2. Lim SS, Dandona L, Hoisington JA, et al. India's Janani Suraksha Yojana, a conditional cash transfer programme to increase births in health facilities: an impact evaluation. Lancet 2010;375:2009-23 PubMed
3. Shroff MR, Griffiths PL, Suchindran C, et al. Does maternal autonomy influence feeding practices and infant growth in rural India? Social Science & Medicine 2011;73(3):447 PubMed -55 doi: 10.1016/j.socscimed.2011.05.040[ PubMed published Online First: Epub Date]].

Reviewer: 2

#### <b>Comments to the Author</b>

Poverty, malnutrition and deprivation of basic determinants of health, such as clean water, sanitation and shelter, continue to blight the lives (and kill) millions of children worldwide. This is despite the fact that for many years now we have known how to prevent and treat the common conditions which kill and maim poor children. This review of child health in India is a timely reminder of this unacceptable situation which is all too often ignored by paediatricians. India is an instructive case study of how important politics and government policies are to child health. As the review ably demonstrates,

India's State governments have adopted very different policies since independence resulting in strikingly different child health outcomes.

The factual information in the review is very valuable and instructive. I have one suggestion for improvement - short explanation of the Indian federal and state structure would help contextualise the information given in the review particularly for those unfamiliar with India. WE HAVE ADDED A SENTENCE ABOUT THE STATES OF INDIA IN THE INTRODUCTION

I also think it is important to stress that the states that have achieved improved child health outcomes have done so as a result of political will and policies consistently applied over a protracted period. These policies are not random or chance they are a result of political choice to improve the health of the whole population by public provision of health care, education and basic requirements for health.

In this context, the authors might consider removing the word 'unfortunately' on p.5 in relation to immunisation rates and 'disappointing' on p.7 in relation to the federal government's failure to adopt similar policies to Kerala. These are neither unfortunate nor disappointing – they are deliberate political choices to favour a powerful elite and keep the mass of the population in ignorance and poverty. WE HAVE NOW MENTIONED POLITICAL WILL SEVERAL TIMES IN THE PAPER