

## Editorial

# Climate Change and Child Health in Developing Countries: An Alarming Issue

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## Introduction

Climate change is a change in the statistical distribution of weather patterns when that change lasts for an extended period of time (i.e., decades to millions of years) [1]. Certain human activities have been recognized as primary reasons of ongoing climate change, regularly referred to as global warming [2].

Climate change affects everyone, however certain populations go through disproportionately, one being children, particularly in creating developing countries [3] like Bangladesh. According to the Economist Intelligence Unit (EIU) annual global survey, Dhaka the capital city of Bangladesh currently obtained the unflattering tag of being listed as the second least livable metropolis in the world [4]. The threat to human health in Bangladesh is one of the most important risks bobbing up from climate change [3] and children are prone by using nature. First socially, they rely on a caregiver and have difficulties expressing themselves [5]. Also, biologically, they have weaker immune systems [6] and poor temperature regulation [7]. According to the World Health Organization, more than eighty percentage of the contemporary health burden due to altering climate occurs in children younger than five years old. These health impacts include the large outcomes of weather disasters, exacerbated allergic and asthmatic diseases, meals and water insecurity, and heat-related deaths. As local weather change accelerates, children will continue to suffer disproportionately [8].

The exposures to local weather change influence children's health begin earlier than conception-reflecting parents' diets and different environmental exposures (Maternal dietary popularity can have an effect on lifetime threat of many continual diseases) [9] and proceed via being pregnant (Extreme warmth all through pregnancy is associated to lower birth weight) [10], childhood Breast-feeding practices are affected by means of extreme climate occasions [11], Diarrheal illness is already a main cause of dying in young children [12], and adolescence (Particulate depend and ozone can have an effect on lung development) [13]. The impacts climate change has on health can be considered into primary, secondary, and tertiary,

ranging from injury, pollution, or meals and water shortages, respectively [14]. Now, increase these health hazards through the lack of authorities, resource [15], terrible infrastructure [16] and ordinary poverty of developing nations.

## Primary Risks

The most direct risks of climate change are various physical and mental grievances. A study in India found that children under age five who had experienced a natural disaster within the previous month have been 9-18% more likely to go through an acute illness such as fever, respiratory illness, or diarrhea which kills over 5,00,000 children under age five yearly [16].

Extreme heat is another concern already confronted *via* many developing nations, which tend to have warmer climates than developed countries to begin with. The insufficient infrastructure in poorer nations, including lack of air conditioning and negative ventilation, make the effects much greater [17]. A study found that in developing countries, for each 1°C increase, the mortality rate for adults increased by 2-3%, and for children by 50-100% [18].

Heat raises child mortalities in numerous ways, though most heat-related deaths are due to cardiovascular failure, which is usually exacerbated by way of respiratory failure [19]. Blood issues and digestive system failure are common among infants, who are specifically prone to heat. Infants have negative body temperature legislation with more fatty tissue and reduced sweating in contrast to children and adults. In fact, heat has been linked to Sudden Infant Death Syndrome (SIDS). When an infant is protected up in the warmth for a lengthy period, such as overnight, the child is not always in a position to cool sufficiently, leading to brain trauma [19].

## Secondary Risks

Ecological disruptions from climate change amplify aeroallergens and pollution [20] and alter the length of disease transmission cycles [21]. Vector-borne illnesses have spread, as altered climate leads bugs and animals to new places. Children in highlands, for example, are at new threat of diseases such as malaria as the temperature rises [22]. Communicable diseases, again, influence the children disproportionately. In 2015, roughly 70% of malaria deaths were children under 5 years of age [23]. Wealthy countries, however, have the resources to control and combat most infectious diseases.

## Tertiary Risks

A steady childhood is important for appropriate social, physical, and cognitive development. Natural mess ups have been found to alter a child's fitness trajectory, specifically in developing countries like Bangladesh. For example, households have delayed or skipped immunizing their children for the need to divert finances for recovery, or from problem getting access to a hospital [24].

## Conclusion and Recommendation

Therefore, prevention and control of climate-sensitive diseases must be addressed with area-specific interventions guided via local-level planning of the low-income prone communities. Additionally, Governments ought to be inspired and supported to combine environmental health indications inside countrywide health information systems like all the pertinent ministries and offices concerned with environment, water, sanitation, health, education, information and social coverage for masking the entire population however which include specific focus on children. Likewise, children themselves have to be viewed as key companions in the collections and use of environmental health information. Integration of children's environmental health indications into foremost school lifestyles skills and environmental education initiatives, which have interaction children thru participatory approaches in relevant local action, can turn out to be an essential aspect of national programs addressing the impacts on climate change. Along with this, the global level, organization and partnerships concerned in this region need to set up this difficulty as a precedence and take actions accordingly. On this basis, a contribution can be made to addressing the ordinary health impacts of climate change, and to the promotion of children's desires and rights at each the country wide and world level.

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## References

1. Wikipedia, Climate change.
2. America's Climate Choices: Panel on Advancing the Science of Climate Change; National Research Council (2010). *Advancing the Science of Climate Change*. Washington D.C.: The National Academies Press. 2014.
3. Al-Amin AQ, Kari F, Alam GM. Global warming and climate change: prospects and challenges toward long-term policies in Bangladesh. *Int J Global Warming*. 2013; 5: 67-83.
4. The Daily Star, EIU Survey: Dhaka ranked second least liveable city.
5. Anderson KL, Madrid P. 405-Population risk factors in emergency/disaster work. *European Psychiatry*. 2013; 28:1.
6. Datar A, Liu J, Linnemayr S, Stecher C. The impact of natural disasters on child health and investments in rural India. *Soc Sci Med*. 2013; 76: 83-91.
7. Zivin JG, Shrader J. Temperature Extremes, Health, and Human Capital. *Future of Children*. 2016; 26: 31-50.
8. Protecting Children from Climate Change. American Academy of Pediatrics.
9. World Health Organization. *The World Health Report 2002: Reducing Risks and Promoting Healthy Life*. 2002.
10. Deschênes O, Greenstone M, Guryan J. Climate change and birth weight. *Am Econ Rev* 2009; 99: 211-217.
11. Akachi Y, Goodman D, Parker D. Innocenti Discussion Paper. Florence: UNICEF Innocenti Research Centre; 2009. *Global Climate Change and Child Health: A Review of Pathways, Impacts and Measures to Improve the Evidence Base*.
12. Campbell-Lendrum D, Woodruff R. Comparative risk assessment of the burden of disease from climate change. *Environ Health Perspect*. 2006; 114:1935-1941.
13. Global climate change and children's health. American Academy of Pediatrics Committee on Environmental Health. 2007; 120: 1149-52.
14. McMichael AJ. Globalization, climate change, and human health. *The New England journal of medicine*. 2013; 368: 1335-43.
15. Currie J, Deschênes O. Children and Climate Change: Introducing the Issue. *Future of Children*. 2016; 26: 3-9.
16. World Health Organization. *Climate change and health 2017*.
17. Hanna R, Oliva P. Implications of Climate Change for Children in Developing Countries. 2016; 26: 115-132.
18. Basu R, Ostro BD. A multicounty analysis identifying the populations vulnerable to mortality associated with high ambient temperature in California. *American Journal of Epidemiology*. 2008; 168: 632-637.
19. Zivin JG, Shrader J. Temperature Extremes, Health, and Human Capital. *Future of Children*. 2016; 26: 31-50.
20. Council on Environmental H. *Global Climate Change and Children's Health*. Pediatrics. 2015; 136: 992-997.
21. McMichael AJ, Lindgren E. Climate change: present and future risks to health, and necessary responses. *Journal of Internal Medicine*. 2011; 270: 401-413.
22. Kousky C. Impacts of Natural Disasters on Children. *Future of Children*. 2016; 26: 73-92.
23. World Health Organization. *Malaria in children under five 2017*.
24. Datar A, Liu J, Linnemayr S, Stecher C. The impact of natural disasters on child health and investments in rural India. *Soc Sci Med*. 2013; 76: 83-91.