

Climate change impacts childhood

Karla Yohannessen^{a, b, c*} 

^aEscuela de Salud Pública, Facultad de Medicina, Universidad de Chile, Santiago, Chile; ^bDepartamento de Pediatría y Cirugía Infantil Norte, Facultad de Medicina, Universidad de Chile, Santiago, Chile; ^cCentro de Ciencia del Clima y la Resiliencia (CR)

KEYWORDS Climate change, human rights, childhood, Social Determinants of Health

In its latest report, the Intergovernmental Panel on Climate Change (IPCC) stated that since the 19th century, human activities have been the main driver of climate change through persistent anthropogenic modifications in the composition of the atmosphere or land use [1]. Global warming has led to droughts and desertification, ocean acidification, melting of the poles, rising sea levels, and increasing the frequency and intensity of extreme weather events (extreme temperatures, heavy rains and floods, forest fires). Evident damage to ecosystems and biodiversity loss has devastating consequences on the population's health, well-being, and living conditions [1,2].

Climate change represents one of the main challenges for public health due to its direct impacts. These are related to injuries, diseases, aggravation of comorbidities, and deaths due to extreme weather events. On the other hand, indirect impacts act through natural systems, increasing the risk of respiratory diseases, food- and waterborne diseases, and vector-borne diseases [3].

Climate change is the greatest threat facing the world's children and youth. This portion of the population is more vulnerable to the health effects of climate change for four main reasons:

1. They have less capacity to withstand extreme weather events physically.
2. They have physiological systems that are still developing and their bodies adapt at a slower rate, making them more susceptible to climate-related diseases.
3. They are at greater risk than adults of dying from climate-sensitive diseases and extreme weather events.
4. They have their whole lives ahead of them; exposure to environmental degradation and its effects at a young age can negatively affect their adult lives [4,5].

As health professionals and child health teams, we must ensure that health adaptation measures are taken in response to the effects of climate change so that health systems are prepared to care for children and adolescents affected by direct and indirect health impacts. The Pan American Health Organization (PAHO) has recognized that climate change poses significant risks to the health and well-being of the population, especially children and adolescents. It also calls for efforts by health authorities to create climate-resilient health systems that can anticipate, prepare for, prevent, respond to, and recover quickly from climate risks. Some essential aspects of these systems are:

1. Preparing health infrastructure, ensuring safer and more operational facilities during and after climate events.
2. Train and sensitize health personnel to recognize the signs and symptoms of weather-related health conditions.
3. Identify sensitive events and risks by geographic area to anticipate specific health events.
4. Implement surveillance systems to anticipate and prepare health facilities.
5. Empower, educate, and raise awareness among local health representatives, including children and adolescents [3].

Although the direct and indirect impacts of climate change on the health of children and adolescents are significant, we cannot overlook its impacts on the social determinants of health that affect the conditions in which children are born and grow up and that threaten to reverse the progress achieved in terms of child health and well-being.

The United Nations Children's Fund (UNICEF) has been emphatic in stating that the climate crisis is a children's rights crisis and that climate change can amplify the vulnerabilities of children already living in dangerous circumstances. Some of the children's rights threatened or violated by climate change are:

- Right to health. The lack of preparedness of health systems and services because of damage to health infrastructure make emergency interventions less effective or non-existent.

* Corresponding author karla.yohannessen@uchile.cl

Citation Yohannessen K. Climate change impacts childhood. Medwave 2024;24(1):e2805

DOI 10.5867/medwave.2024.01.2805

Submitted Dec 4, 2023, Accepted Dec 19, 2023,

Published Jan 15, 2024

Postal address Santiago, Chile

- Right to life and survival. Extreme weather events directly and indirectly endanger the life and survival of children and adolescents and their families.
- Right to a healthy and safe environment. Environmental degradation caused by climate change affects the environment where children and adolescents are born, learn, play, and develop. In addition, when a place becomes unsafe, many families are forced to move, and children and adolescents are forced to leave their schools and communities, affecting their education and well-being.
- Right to food. Climate change affects food production, leading to food shortages and price increases, increasing child malnutrition, stunted growth, and vulnerability to disease.
- Right to education. Extreme weather events often disrupt the education of children and adolescents (schools damaged by floods and fires, among others), leading to loss of learning opportunities. On the other hand, extreme temperatures and smoke from fires could make classrooms unsafe or unsuitable for learning.
- Right to participation. Children and adolescents are often excluded from decisions related to climate change, even though their future is at stake.

All these threatened and violated rights are detrimental to this age group's current and future health, cognitive development, and learning outcomes, ultimately impacting educational attainment and subsequent employment opportunities [4,5].

Health professionals and child health teams must ensure adaptive measures in all sectors. This requires putting "health in all policies" to address the impacts of climate change on the healthy development of children and adolescents with a view to the future. In other words, we must consider how preparation for the current indirect impacts of climate change will benefit future adults and the next generations. Interdisciplinary and intersectoral work is essential for constructing coordinated and simultaneous public health interventions, with different sectors that appreciate climate change's complex causal circumstances and impacts. All these actions must also include an environmental justice approach, given that the effects of climate change are not evenly distributed across territories, regions, and the world. Likewise, risks have also been unevenly distributed within and between populations [5,6].

Climate change mitigation actions are part of the preventive measures that could prevent health problems in children and adolescents instead of treating them. For this, it is necessary to drastically reduce greenhouse gas emissions and environmental pollutants, which in public health is known as addressing "the

causes of the causes". As health professionals and child health teams, we must ensure that the progress of climate change is prevented. To this end, applying the slogan "health in all policies" and strengthening interdisciplinary work to advocate for children and adolescents with an emphasis on climate change mitigation is necessary. Intersectoral work is essential in the education, health, housing, agriculture, energy, and environment sectors. Similarly, the role of health professionals and academia is to highlight the health benefits of intersectoral mitigation measures [6].

Competing interests The author declares that she has no conflicts of interest related to the subject of this article.

Funding The author states that there were no external sources of funding.

Language of submission Spanish.

Peer review and provenance The editor-in-chief solicited this commentary. Not externally peer-reviewed.

REFERENCES

1. Intergovernmental Panel on Climate Change-IPCC. Climate Change 2021 The Physical Science Basis Summary for Policymakers Working Group I Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. 2021. <https://www.ipcc.ch/report/ar6/wg1/>
2. Intergovernmental Panel On Climate Change. Climate Change 2022 – Impacts, Adaptation and Vulnerability. Climate Change 2022 – Impacts, Adaptation and Vulnerability: Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press; 2023. <https://www.cambridge.org/core/product/identifier/9781009325844/type/book> <https://doi.org/10.1017/9781009325844>
3. Organización Panamericana de la Salud. Cambio Climático y Salud. <https://www.paho.org/es/temas/cambio-climatico-salud>
4. Fondo de las Naciones Unidas para la Infancia (UNICEF). La crisis climática es una crisis de los derechos de la infancia: Presentación del Índice de Riesgo Climático de la Infancia. 2021. https://www.unicef.org/media/105541/file/UNICEF_climate%20crisis_child_rights_crisis-summary-ES.pdf <https://doi.org/10.18356/9789210053051>
5. Clark H, Coll-Seck AM, Banerjee A, Peterson S, Dalglish SL, Ameratunga S, et al. A future for the world's children? A WHO-UNICEF-Lancet Commission. *Lancet*. 2020;395: 605–658. [https://doi.org/10.1016/S0140-6736\(19\)32540-1](https://doi.org/10.1016/S0140-6736(19)32540-1)
6. Williams PC, Marais B, Isaacs D, Preisz A. Ethical considerations regarding the effects of climate change and planetary health on children. *J Paediatr Child Health*. 2021;57: 1775–1780. <https://doi.org/10.1111/jpc.15704>

El cambio climático impacta la infancia



This work is licensed under a Creative Commons Attribution 4.0 International License.