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Pediatric societies' declaration on responding to the impact of climate change on children



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There is a crisis in the global response to the changing climate. Over the last five years, the world has failed to meet the targets established in the 2015 Paris Agreement. [1] Progress on reducing greenhouse gas emissions is lagging particularly far behind. Many high-income countries rank near the bottom in terms of performance on contributions to global ecological sustainability (measured as excess CO₂ emissions relative to 2030 targets). [2] Low-income countries rank near the top with regard to global ecological sustainability. [2] The United Nations Climate Change Conference (COP 26) in November 2021 in Glasgow, Scotland offers an important, indeed essential, opportunity to create sustained momentum for the policies and funding that are required to keep the global temperature rise under 1.5°C to protect human health and the planet.

In 2020 the International Society for Social Pediatrics and Child Health identified the need to rally pediatricians and child health professionals from around the world to address the climate crisis because of its adverse effects on child health. In response, a declaration on responding to the impact of climate change on children was drafted by the International Society for Social Pediatrics and Child Health and subsequently revised and adopted by the International Pediatric Association.

Responding to the impact of climate change on children

Children worldwide are demanding their views on climate change be heard, a right guaranteed by the United Nations Convention on the Rights of the Child. [3–5] They have reason to be concerned—the 2019 report of the Lancet Countdown and multiple other publications document the profound vulnerability of infants, children, and young people to the direct and indirect impacts of climate change on their health and well-being. [6–18]

Child health professionals and organizations must follow the lead of the world's youth and develop long-term relationships with them as we collaboratively respond to the existential threats of the climate crisis on children. No profession will bear witness to the effects of climate change on children to the extent of pediatricians. We are uniquely positioned to engage with other health professionals and child advocates in developing comprehensive strategies to prevent and mitigate the impact of the global climate crisis on children and youth.

We resolve to take the necessary actions to achieve an equitable and just transition to a sustainable planet for all children.

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Toward these ends

Whereas, the Intergovernmental Panel on Climate Change's fourth assessment report concluded the Earth is undergoing adverse global climate change and that man-made contributions are significant; [19] and

Whereas, climate changes have created conditions that affect public health, with disproportionate effects on certain life stages and circumstances, in particular children and those living in poverty and low-income countries; and

Whereas, children are particularly vulnerable because their bodies are growing and developing, they have unique behaviors and interactions with their environment, and they must rely on parents and caregivers to provide for their basic needs; and

Whereas, climate change will affect children's health as a result of their exposure to elevated temperatures; more frequent, severe, or longer-lasting extreme weather events; increasing transmission rates of food, water, and vector-borne diseases; increasing rates of mycotoxin-related illnesses; increases in air pollution from molds, pollens, and the burning of fossil fuels; and mental health stressors; [5–18] and

Whereas, displacement, destruction of infrastructure, and conflicts arising from competition for water, food and other resources will increasingly impact children's health, mental health, and well-being; [20,21] and

Whereas, excessive exploitation of the earth's natural resources by relentless deforestation and overfishing will affect the air quality and threaten the food security of generations to come; and

Whereas, conflict is not only a consequence of climate change (competing for dwindling resources), but also is a primary driver of the exploitation of natural resources to produce military hardware and transport it; and

Whereas, the digitization of our world consumes vast amounts of energy; and

Whereas, children experience different mental health effects than adults during and after disasters—that vary based on their developmental stage and level of cognitive and emotional maturity; [22–25] and

Whereas, the effects of climate change on mental health among children have been reviewed, and researchers have called for identification of "...ways to fortify the societal structures necessary for mental health that climate change threatens to erode" [24];

Therefore, be it resolved, that regional, national, and international pediatric organizations—together with multidisciplinary child health professionals, child advocates, youth, and families—commit to work individually and collectively to minimize the use of fossil fuels, decrease global carbon emissions, protect the earth's natural resources, mitigate the impact of climate change on children, and achieve climate justice in an ecologically grounded and sustainable world, such that, in unison they/we:

Advocate for:

- Local, national, and international policies and strategies that rapidly reduce greenhouse gas emissions and ensure preparedness for climate-associated extreme weather events;
- Sustainable and renewable electricity-generating systems, accessible transportation, plant-based food, and equitable access to green spaces that improve the lives of children and families;
- Sustainable, carbon neutral housing, and upgrading of existing housing stock as a means of reducing childhood respiratory conditions;

- Basic energy-saving strategies in homes, schools, hospitals, and workplaces;
- Electric vehicles "fueled" by sustainable energy sources as a means of reducing air pollution;
- Principles of sustainable development [26];
- Advancing and supporting children and young people's own advocacy and mitigation endeavors on the climate crisis;
- Engaging clinical and non-clinical staff in practices, hospitals, and health systems; and children, youth, and patients' families, as advocates; and
- Reducing the carbon and environmental footprint of health facilities by increasing energy efficiency, incorporating renewable energy sources, and reducing waste.

Educate:

- Child health professionals at all levels of training and in all venues of practice, on all aspects of the climate crisis, including: a) the science of climate change, b) the direct and indirect impact of climate change on child health and well-being, c) strategies for mitigating carbon emissions, d) approaches to preventing and responding to the impact of climate change on children's physical and mental health, and e) how to be effective child health advocates;
- Children and families on climate change and its impact on child health and well-being, in clinical practice and health venues (offices, clinics, hospitals), schools, and other places where children and adults live and learn;
- Elected officials on the risks that climate change poses to child health, by speaking at public hearings and providing expert testimony;
- The general public about the impact of climate change on child health, through letters to the editor and community engagement;
- Pediatric societies about the need to advance and fulfill targets for CO₂ reduction;
- Communities, including professionals and non-professionals of all ages, about how to advocate individually and collectively and work with children to raise awareness and respond to the climate crisis;
- Other child health professionals about integrative and collaborative movements, such as One Health, Planetary Health, and Traditional Ecological Knowledge, which identify the root civil-political, social, economic, cultural, ecological, and philosophical causes of climate change; and
- Families and communities about strategies to maintain resilient ecosystems, protect biodiversity, cultivate inter-species justice, and advance human rights, equity, and social justice.

Take the following additional actions:

- Use the framework of anticipatory guidance at office visits for discussing climate change with families;
- Serve as personal role models for practices that promote environmental sustainability;
- Purchase local and recycled goods and avoid disposable products;
- Develop and disseminate strategies and tools to ensure child health professionals have the capacity to translate the ecological elements of whole child health (such as the need for clean air and water, nutritious food, access to parks and green spaces) into practice;
- Reduce the carbon footprint associated with professional meetings by reducing flying; contracting with "Green" facilities and organizations; and offering primarily vegetarian, climate-conscious, and locally-sourced meals;

- Refuse sponsorship of pediatric meetings by the fossil fuel industry;
- End sponsorship of pediatric meetings by formula and baby food industries and promote breast feeding, which is more environmentally friendly than the production of formula and processed foods;
- Stop the commercial exploitation of children and mitigate its impact on consumerism across the life course;
- Collaborate with health departments, academic institutions, research facilities, and activist groups to enhance surveillance, analysis, and reporting of climate-sensitive health effects on children;
- Strengthen disaster preparedness, in particular as it relates to children and youth;
- Address the harm and manage the damage currently occurring secondary to the impact of climate change by supporting families displaced due to climate change, improving health services and access to care for vector-borne illnesses and heat stroke, expanding vaccine access, and improving housing;
- Participate in and advance research on effects of climate change on child health inequities, and catalyze transformative actions to translate this research into practice; and
- Advance reproductive justice for individuals and families.

Because human-induced climate changes adversely affect children and youth, child health professionals, societies, and organizations must acknowledge the global climate crisis as an existential and universal threat to children's health and well-being. They must proceed forcefully as individuals and jointly as organizations and societies to prevent, mitigate, and decisively correct this impact and fulfill the rights of children to optimal survival and development.

This Declaration builds on previous declarations including the 2012 Doha Declaration on Climate, Health and Wellbeing, [27], the 2019 Declaration of the World Association of Family Doctors, Planetary Health Alliance, Clinicians for Planetary Health Working Group [28] and the 2019 Helsinki Declaration [29]. It also draws on a 2015 policy statement from the American Academy of Pediatrics [7]. The Declaration is consistent with the *Children in All Policies 2030* initiative launched earlier this year [30].

The intended purposes of this Declaration are twofold, to: 1) explain the important roles and responsibilities of pediatricians in responding to climate change; 2) provide pediatricians in pediatric societies and professional organizations around the world with a tool to support advocacy with country delegations and missions leading up to the United Nations Climate Change Conference in 2021, and thereafter. The Declaration also provides information on which pediatricians can base recommendations and advice to their patients and communities [31].

Pediatricians often are invited to provide public testimony about the health effects of climate change, but they may not feel prepared to do so. A recent survey by Kotcher et al. [32] identified several concerns that health professionals may have about public engagement on climate change. The survey found that 22% of health professionals believed that their peers would not support such an effort, 16% believed that the topic was too controversial, and 14% believed that public engagement was too risky for them personally or professionally. This Declaration should help to allay each of these concerns by demonstrating a) that large international pediatric associations support public involvement of pediatricians in the climate crisis, b) that there is scientific consensus on the health effects of climate change, and c) that public engagement is expected of pediatricians.

By making this Declaration widely available, the International Society for Social Pediatrics and Child Health and the International Pediatric Association are inviting other global and national pediatric

societies and child health organizations to endorse and publicly support it. The Indian Academy of Pediatrics has already endorsed it. Others, including the Royal College of Paediatrics and Child Health in the UK, are preparing their own position statements on climate change and child health. The International Society for Social Pediatrics and Child Health and the International Pediatric Association encourage national pediatric societies and child health organizations and their members to engage more actively in addressing the urgent need to reduce greenhouse gas emissions. It takes a village to raise a child. But it will take all child health professionals speaking with one unified voice to ensure that the climate crisis does not steal that child's future.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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