



Report on the High-level conference

Research Perspectives on the Health Impacts of Climate Change

Report on the High-level conference «Research Perspectives on the Health Impacts of Climate Change»

European Commission

Directorate-General for Research and Innovation

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Manuscript completed in September 2024

1st edition

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PDF	ISBN 978-92-68-19578-9	doi: 10.2777/033142	KI-09-24-614-EN-N
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Luxembourg: Publications Office of the European Union, 2024

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*Report on the
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Research Perspectives on the Health Impacts of Climate Change

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Research Perspectives on the Health Impacts of Climate Change

High-level conference

Brussels 19-20 February 2024



Introduction

Climate change is a global existential challenge that has introduced unprecedented pressures on the planet which are already translating into significant consequences for human health.

Research and innovation (R&I) are key in delivering evidence and tools to understand, prevent and reduce the health impacts of these rapidly unfolding threats. However, there are numerous knowledge gaps that need to be filled and innovation opportunities that remain untapped.

There is also growing momentum and interest at the global level to increase coordination towards a forward-looking research agenda in climate change and health that will be capable of delivering robust evidence for the necessary adaptation and mitigation actions and policies.

This high-level conference brought together researchers, policymakers, funders, and other relevant stakeholders to reflect on the research needs at the intersection of climate change and human health.

Executive Summary

The Research Perspectives on the Health Impacts of Climate Change conference, held in Brussels on 19-20 February 2024, took a deep dive into the

implications of climate change for global health across two eventful days. Day 1 commenced with a focus on understanding the intricate relationship between climate change and health, emphasising the urgency of addressing this complex issue.

The discussions went on to underscore the need for comprehensive strategies encompassing both adaptation and mitigation within healthcare systems. The participants emphasised the need for actionable research and community engagement to address the complex challenges around climate and health. Discussions ranged from heat stress and infectious diseases to extreme weather events, highlighting the urgent need for policy action and interdisciplinary collaboration. In parallel, experts explored the intricate interactions between climate change and environmental stressors, advocating for sustainable practices in food systems, water management, and biodiversity conservation to safeguard human health.

Day 2 further explored these themes, highlighting the healthcare sector's significant contribution to greenhouse gas emissions and the imperative for sustainable practices and collaboration to mitigate climate-related risks effectively. Sessions delved into adaptation strategies, implementation science, global research agendas, and challenges faced by low-income countries, stressing the importance of inclusivity, interdisciplinary collaboration, and equitable partnerships.

Young scientists contributed valuable insights, emphasising the critical role of collaborative research and innovative approaches in addressing climate-related health challenges. The closing session highlighted the pivotal role of effective communication, collaboration, and implementation in bridging the gaps and successfully translating research into tangible actions.

Overall, the conference provided a much needed platform for robust discussions, highlighting the pressing need for concerted efforts to safeguard human health amidst the escalating impacts of climate change and the need for more policy-literate scientists and science-literate policymakers to emerge.

Opening Session

Following a welcome by former Youth Representative at the United Nations Hajar Yagkoubi, opening remarks by the Belgian Minister of Climate, Environment, Sustainable Development, and the Green Deal Zakia Khattabi, and an address by the European Commission's Executive Vice-President for the European Green Deal, Interinstitutional Relations and Foresight Maroš Šefčovič, the conference kicked off with a high-level panel discussion.

The opening remarks underscored the critical need for a concerted global effort to address the profound health challenges posed by climate change. The ensuing panel discussion delved deeper into the interdisciplinary nature of the climate-health nexus, stressing the need for holistic approaches to address these challenges. Panellists highlighted the disproportionate vulnerability of children to climate change impacts and emphasised the importance of involving youth in decision-making processes. Practical examples from countries like Malawi illustrated the direct health impacts

of climate change, including malnutrition and increased disease prevalence. Concerns were raised about the lack of funding and access to vaccines in developing countries, exacerbating pre-existing health vulnerabilities.



Photo from opening session.

Furthermore, panellists emphasised the imperative of having collaborative efforts across sectors and regions, urging organisations like the World Health Organization (WHO) to break down silos and incentivise interdisciplinary co-operation. The discussion stressed that climate action is not merely about protecting the planet but safeguarding human civilization. It was emphasised that health is a key driver of global climate action, and efforts to protect human health are intrinsically linked to safeguarding planetary health.

The opening session served as a call to action for intensified research, collaboration, and policy interventions to mitigate the health impacts of climate change and secure a sustainable future for generations to come.

Theme 1: Short and long-term impacts of climate change

Under the overarching theme of ‘Short and long-term impacts of climate change’, the conference served as a platform for researchers and policymakers to delve into the intricate challenges facing global health. The plenary session set the tone by emphasising the urgent need for actionable research and community engagement to effectively address the multifaceted impacts of climate change on both non-communicable and infectious diseases. Speakers underscored the critical importance of translating research findings into tangible actions, particularly highlighting the vulnerability of high-risk populations who often bear the brunt of climate-related health impacts despite contributing minimally to global greenhouse gas emissions. Social determinants such as poverty, migration, and conflict were pinpointed as key factors exacerbating vulnerability to climate change effects.

In a parallel session dedicated to exploring the



Photo from Plenary 1

role of heat stress in non-communicable and infectious diseases, experts delved into the significant impact of heat stress on public health. Heat stress emerged as a pressing concern, particularly

in regions like Europe and Sub-Saharan Africa, where vulnerable populations face heightened risks. Urgent policy action was deemed necessary to address heat health, with a focus on prevention, awareness campaigns, and equitable interventions. Community-level strategies such as cooling spots and early warning systems were highlighted as crucial for mitigating risks, especially in urban settings and sectors like agriculture and construction. Moreover, the session stressed the interconnectedness of physical and psychological impacts, advocating for holistic approaches to address heat stress amidst the backdrop of climate change.



Photo from parallel session 1.

Discussions also centred on the intersection of climate change and infectious diseases, with a focus on enhancing transparency in data utilisation and prioritising prevention strategies. Panellists highlighted the global movement of diseases and the need to address health challenges at their source through collaborative efforts across disciplines and levels. Urban settings were identified as focal points for intervention due to their susceptibility to vector-borne diseases, necessitating nuanced approaches that account for both physical and mental health considerations. Gender-specific vulnerabilities and roles were also underscored, highlighting the importance of participatory approaches to tackle the complex challenges at the climate-health nexus effectively.



Photo from parallel session 2.

Lastly, a session on extreme weather events and their impact on physical and mental health provided comprehensive insights into the challenges and responses to this critical issue. Attendees discussed the significant mortality and morbidity associated with temperature extremes, highlighting variations across regions and the preventable nature of many deaths. Notable aspects of the discussion included the increasing recognition of mental health implications related to climate change and the need for mental health to be given equal priority to physical health in policy agendas. Strategies for addressing extreme weather events included simple behavioural changes and community interventions, alongside comprehensive research efforts to support policy adaptation and reduce physical and mental health impacts.



Photo from parallel session 3.

Theme 2: **Climate change in the context of other environ- mental stressors**



Photo from plenary 2.

Under the theme of 'Climate Change in the Context of Other Environmental Stressors', experts and policymakers examined the intricate interactions between climate change and various environmental factors, shedding light on their profound implications for global health. The plenary session delved into the interplay between climate change and other environmental drivers on health-related outcomes, emphasising the need for integrated approaches to address these challenges comprehensively. Discussions underscored the importance of transitioning to clean energy and sustainable food systems, as well as ensuring water security and biodiversity conservation to safeguard human health amidst environmental changes. Urgent research efforts were called upon to tackle the multifaceted challenges posed by climate change and other environmental stressors, including strengthening climate resilience, addressing direct health impacts, and promoting the health co-benefits of climate change mitigation.

One of the parallel sessions focused on Health and Sustainable Nutrition in a Climate Change Scenario, addressing critical concerns regarding

food systems and their impact on human and planetary health. Speakers highlighted the reciprocal interactions between food systems and planetary health, stressing the importance of sustainable and equitable diets to promote both human health and environmental sustainability. Concerns were raised regarding food insecurity exacerbated by climate change-induced heatwaves and droughts, prompting proactive measures to anticipate and address food crises. The session underscored the urgency of adopting sustainable practices in food production and consumption to mitigate adverse health effects and ensure food security for all.



Photo from parallel session 4.

In another parallel session, discussions centred on Water-related Health Risks from Climate Change, exploring current challenges and future responses regarding pathogens in aquatic environments. Participants highlighted emerging threats due to climate change, such as the expansion of pathogens' distribution ranges and increased water usage for recreation as temperatures rise. Proactive measures to mitigate these threats were emphasised, including expanded monitoring of waterborne pathogens and improved understanding of their infectivity in water. The session underscored the importance of interdisciplinary collaboration and robust adaptation strategies to ensure the resilience of water systems and protect public health amidst climate change.

Lastly, another parallel session delved into the Combined Effects of Pollution, Climate Change,



Photo from parallel session 5.

and Biodiversity Loss on Human Health, highlighting the critical implications of these interconnected challenges. Speakers stressed the need for collective action and interdisciplinary research to address the triple crisis of climate change, pollution, and biodiversity loss. Emphasising the interconnectedness between human life and the planet, the session called for enhanced collaboration between different disciplines and sectors to translate scientific findings into actionable solutions. More inclusive approaches to climate action were advocated, recognising the value of qualitative research and the diverse perspectives and experiences of communities worldwide, including those of indigenous peoples who are privy to traditional knowledge.



Photo from parallel session 6.

Theme 3:

Climate change and the health sector

Under the theme of 'Climate Change and the Health Sector', the different panels addressed the multifaceted challenges and opportunities for healthcare systems in the context of climate change. The plenary session highlighted the critical need for both adaptation and mitigation strategies within healthcare systems to address the evolving impacts of climate change. Speakers emphasised the importance of moving beyond risk assessment and towards implementing actionable solutions, utilising trans-disciplinary approaches to tackle the complex interplay between climate change and health outcomes. The session underscored the potential to save millions of lives through proactive mitigation and adaptation efforts, stressing the necessity of research on interventions, outcomes, and processes to transcend existing silos within the healthcare sector.



Photos from plenary session 3.

One parallel session centred on Mitigation from the Healthcare Sector, shedding light on the significant contribution of the healthcare sector to the climate crisis. Representatives shared insights into efforts to reduce emissions within the healthcare sector, highlighting initiatives towards carbon neutrality and sustainability. Case studies showcased practical approaches to reducing emissions and promoting environmental sustainability in

healthcare facilities, emphasising the importance of collaboration and interdisciplinary approaches. The session underscored the urgent need for concerted efforts to reduce emissions within the healthcare sector, highlighting collaboration, education, and policy support as key drivers of sustainable change.



Photo from parallel session 7.

Another parallel session focused on Adaptation Strategies with a focus on human health, emphasising collaborative efforts, data-driven approaches, and interdisciplinary research to address the challenges posed by climate change. Speakers highlighted the need for evidence-based strategies and engagement with communities to make adaptation measures tangible. The session stressed the importance of transversality, or integration across sectors, and collaboration between policymakers, researchers, and practitioners to develop effective adaptation strategies focused on human health. The session underscored the importance of data-driven, collaborative, and interdisciplinary approaches to adaptation strategies, emphasising inclusivity and the translation of data into actionable solutions.

The last parallel session, discussions centred on Implementation Science: Translating Research into Action, highlighting the importance of systematic assessment and cooperation across disciplines and sectors. Speakers discussed the need for the inclusion of diverse stakeholders in co-creation



Photo from parallel session 8.

and engagement processes and called for a shift towards health-promoting approaches integrated with climate change mitigation and adaptation. The session underscored the role of implementation science in understanding the barriers to achieving sustainable solutions and stressed the urgency of integrating implementation science into climate and health adaptation research to effectively address the challenges posed by climate change on global health.



Photo from parallel session 9.

Theme 4: A global research agenda on climate change and health

Under the theme of ‘A Global Research Agenda on Climate Change and Health’, the discussion explored the state of science, methodologies,

policies, and key research considerations related to climate change and its impacts on health. The plenary session provided global perspectives on climate change and health research, emphasising the need for transdisciplinary science, robust evaluation methods, and inclusive policymaking. Speakers highlighted the unequal evidence base globally and stressed the importance of interdisciplinary approaches to understand the impacts, adaptation, and mitigation strategies related to climate change and health. Recommendations included better definition and evaluation of adaptation options, sectoral integration, economic analysis, and policy frameworks that integrate health research gaps.



Photo from plenary session 4.

One of the parallel sessions focused on rethinking traditional approaches to climate and health research. Speakers emphasised the need for a more inclusive, collaborative, and equity-driven research agenda that engages with communities, policymakers, and stakeholders globally. They called for science justice as a pathway to climate justice, highlighting the importance of incorporating indigenous knowledge and fostering ethical, equitable partnerships throughout the research process. The session also underscored the importance of innovative approaches to climate and health research, collaboration, inclusivity, and equity for developing a robust research agenda that meets the needs of all stakeholders.



Photo from parallel session 10.

Another parallel session addressed the challenges faced by low-income countries in the context of climate change and health. Speakers highlighted the disproportionate impact of climate change on vulnerable populations, infectious diseases, and structural weaknesses within national ministries of health. Challenges such as data gaps, political environments, and funding constraints were discussed, alongside opportunities in policy and legal protections, collaboration between countries, and the integration of indigenous knowledge. The session emphasised the need for holistic, interdisciplinary approaches, increased funding, and better access to funding, and improved collaboration to address complex health challenges in low-income countries amidst climate change.

The last parallel session delved into models, tools, and technologies supporting decision-making on climate change and health. The session highlighted initiatives such as the Lancet Countdown and the Copernicus Health Hub, emphasising the importance of a people-centred approach, co-creation, and advancements in artificial intelligence. Speakers underscored the emerging recognition of mental health as a critical component of the climate change discourse and the need for ongoing evaluation of tools and technologies to ensure efficacy in meeting the evolving needs of users. The session highlighted the collaborative spirit underpinning efforts to address the health ramifications of climate change and the imperative for effective decision-making processes to safeguard human health.



Photo from plenary session 12.



Photo from parallel session 11.

Young Scientists' Forum

The Young Scientists' Forum at the conference provided a platform for emerging researchers to discuss innovative approaches to addressing the intersection of climate change and health. The session featured insightful conversations and presentations on diverse topics, highlighting the importance of collaborative research and the need for inclusive, interdisciplinary approaches.

One notable discussion centred on the implementation of models to measure carbon emissions and mitigation strategies. Additionally, the session underscored the importance of indigenous knowledge in understanding climate-related challenges and emphasised the need for equitable partnerships and funding to address research gaps.

Another key theme was the impact of climate change on mental and physical health, particularly in relation to green spaces. Presenters discussed the benefits of green spaces in mitigating climate anxiety and improving overall well-being, emphasising the need for accessible and

high-quality green spaces in urban environments. Furthermore, discussions addressed the implications of climate change on animal health and food safety, highlighting the importance of transitioning to sustainable farming practices.

The session also addressed the impact of climate change on healthcare workers, including heat-related stress and the need for organisational policies to mitigate these risks. Presenters emphasised the importance of infrastructure and policy adaptations to support healthcare workers' health and well-being in the face of climate-related challenges.

The young scientists emphasised the need for comprehensive research agendas that consider the interplay between climate change, health, and various societal factors. There was a call for improved data collection and harmonisation efforts to better understand the mechanisms driving climate-related health impacts and inform future evidence-based policy decisions.



YSF photo

Final conclusions

The closing session of the conference focused on three key themes: Communication, Collaboration, and Implementation, highlighting the importance of these elements in advancing efforts to address climate change and its implications for human health.



Final session photos

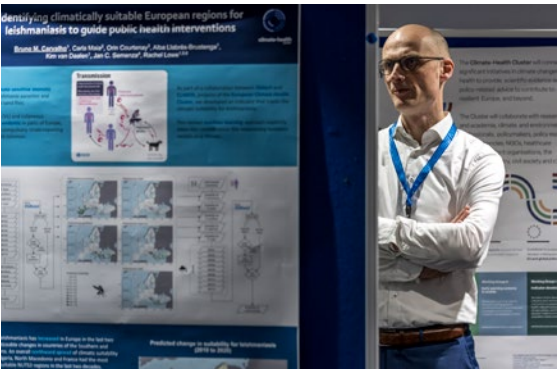


Communication: Participants emphasised the need for effective communication strategies that engage audiences and convey messages with rigour and openness. Recognising the cultural, geographic, and generational diversity of audiences, speakers underscored the importance of tailoring communication approaches to resonate with different groups. They emphasised the delicate balance between hope and pessimism, advocating for honest and nuanced communication that acknowledges the achievements while simultaneously addressing the challenges.

Collaboration: The session emphasised the value of interdisciplinary collaboration and the exchange of knowledge between scientists, policymakers, and stakeholders. Speakers called for increased collaboration across sectors, genders, and generations, highlighting the unique perspectives and contributions each group brings to the table. They stressed the need to move away from idolising individual contributions and instead recognise the importance of collaborative efforts in driving progress in the area of health-centred climate action.

Implementation: Participants discussed the challenges of translating research findings into policy and action. They emphasised the importance of investing in long-term science and data sharing to support evidence-based decision-making. Speakers highlighted the need to value failure as a learning opportunity and emphasised the importance of demonstration projects to showcase effective solutions. They called for the development of roadmaps for implementation and the breaking down of silos between different sectors and disciplines.

Conference photos



Collage of photos from the cocktail and dinner at the end of Day 1

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The «Research Perspectives on the Health Impacts of Climate Change» conference highlighted the critical interplay between climate change and human health. Over the course of two days, participants discussed the urgent need for research to address the health impacts from climate change and highlighted the gaps in adaptation and mitigation research in the context of health and healthcare. The conference underscored the healthcare sector's contribution to emissions, the need for more sustainable practices, and the vital importance of global collaboration. It highlighted the role of young scientists, interdisciplinary research and equitable partnerships in driving actions to solve our greatest climate-related health challenges.

Studies and reports

