



[Image: Royal Irish Academy](#)

HEALTH AND CLIMATE CHANGE

Key Messages>>>

- What are the pathways through which climate change affects health?
- Who are the most vulnerable and most at risk?
- What strategies can be implemented to address the growing incidence of climate-related health issues?

Introduction

The phenomenon of climate change is now universally recognized and acknowledged. There is increasing evidence to substantiate the scientific theories indicating that climate change is adversely affecting human health. However, the impact of climate change on health is quite complex. Moreover, the consequences of climate change are likely to result in a heightened strain on



health services. Understanding the pathways through which climate change affects health is crucial for developing effective strategies towards vulnerability reduction and adaptation. In this regard, it is imperative to look at some of the key pathways through which climate change impacts health, highlighting the complexity and the importance of a multidisciplinary approach to address them. This will help evolve adaptation strategies to address the growing incidence of climate-related health issues.

Health and Climate Change

Climate change is impacting health in a myriad of ways, including by leading to death and illness from increasingly frequent extreme weather events, such as heatwaves, storms and floods, the disruption of food systems, increases in zoonoses and food-, water- and vector-borne diseases, and mental health issues. Furthermore, climate change is undermining many of the social determinants for good health, such as livelihoods, equality and access to health care and social support structures. These climate-sensitive health risks are disproportionately felt by the most vulnerable and disadvantaged, including women, children, ethnic minorities, poor communities, migrants or displaced persons, older populations, and those with underlying health conditions.

The Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report (AR6) concluded that climate risks are appearing faster and will become



more severe sooner than previously expected, and it will be harder to adapt with increased global heating.

It further reveals that 3.6 billion people already live in areas highly susceptible to climate change. Despite contributing minimally to global emissions, low-income countries and small island developing states (SIDS) endure the harshest health impacts. In vulnerable regions, the death rate from extreme weather events in the last decade was 15 times higher than in less vulnerable ones.

WHO data indicates 2 billion people lack safe drinking water and 600 million suffer from foodborne illnesses annually, with children under 5 bearing 30% of foodborne fatalities. Climate stressors heighten waterborne and foodborne disease risks. In 2020, 770 million faced hunger, predominantly in Africa and Asia. Climate change affects food availability, quality and diversity, exacerbating food and nutrition crises.

Temperature and precipitation changes enhance the spread of vector-borne diseases. Without preventive actions, deaths from such diseases, currently over 700 000 annually, may rise. Climate change induces both immediate mental health issues, like anxiety and post-traumatic stress, and long-term disorders due to factors like displacement and disrupted social cohesion.



Recent research attributes 37 percent of heat-related deaths to human-induced climate change. Heat-related deaths among those over 65 have risen by 70 percent in two decades. In 2020, 98 million more experienced food insecurity compared to the 1981–2010 average. The WHO conservatively projects 250 000 additional yearly deaths by the 2030s due to climate change impacts on diseases like malaria and coastal flooding. However, modelling challenges persist, especially around capturing risks like drought and migration pressures.

Part of the strategies to address the growing incidence of climate-related health issues include to:

- Understand all health-related vulnerabilities to climate change
- Promote actions that both reduce carbon emissions and improve health
- Build better, more climate-resilient and environmentally sustainable health systems
- Bring together the right actors to establish integrated approaches for adaptation
- Monitor, evaluate, learn, and adjust approaches to better protect health

Questions

From the above discussion, the following questions become relevant:

- What are the pathways through which climate change affects health?



- Who are the most vulnerable and most at risk?
- What strategies can be implemented to address the growing incidence of climate-related health issues?

Bibliography

World Health Organization URL: [Building Climate Resilient Health Systems](#)

WHO 2023 URL: [Climate Change and Health](#)

