



The Impact of Climate Change on Global Health: A Growing Crisis

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DESCRIPTION

Over the past few decades, climate change has moved from a distant concern to a present reality. It is no longer just an environmental issue—it is a public health crisis with far-reaching implications for human well-being across the globe. The health effects of climate change are not confined to the future but are already being experienced today, with vulnerable populations bearing the brunt of these changes. The Intergovernmental Panel on Climate Change (IPCC) estimates that the climate crisis will lead to millions of premature deaths by 2100 if urgent action is not taken.

Rising temperatures, more frequent and intense extreme weather events, and changing ecosystems are altering the landscape of global health. From the spread of vector-borne diseases to the worsening of air quality, climate change is creating new and escalating health challenges. In this article, we will explore the multifaceted effects of climate change on human health and highlight why it is imperative to integrate health considerations into climate change policy.

Heat-related illnesses and mortality

One of the most immediate and direct impacts of climate change on human health is the rise in heat-related illnesses. Higher temperatures and longer, more intense heatwaves are putting millions at risk of heat stroke, dehydration, and other heat-related illnesses. This is particularly concerning for vulnerable populations such as the elderly, children, and those with pre-existing conditions such as cardiovascular diseases. According to the World Health Organization (WHO), heatwaves are responsible for thousands of premature deaths each year.

As heatwaves become more frequent, the burden on healthcare systems will increase, especially in regions that are already struggling with healthcare infrastructure. The urban heat island effect—where cities are significantly hotter than surrounding rural areas due to buildings, roads, and lack of green space—further exacerbates the problem. Governments must invest in heat action plans, create green spaces, and ensure that

vulnerable populations have access to cooling centers and appropriate care during extreme heat events.

Vector-borne diseases

Another major public health challenge posed by climate change is the spread of infectious diseases, particularly those transmitted by vectors such as mosquitoes, ticks, and flies. Warmer temperatures and shifting weather patterns are expanding the habitats of these vectors, leading to the spread of diseases like malaria, dengue fever, Zika virus, and Lyme disease into regions that were previously unaffected.

For example, malaria was once confined to tropical regions, but due to warmer temperatures, its transmission has been observed in new areas, including parts of Europe and the United States. Similarly, the Zika virus, which is spread by mosquitoes, has spread from South America to other continents in recent years. The authors stress the importance of investing in vector control programs, improving surveillance systems, and strengthening healthcare infrastructure in regions at risk of emerging infectious diseases.

Water and food security

Climate change is also contributing to water scarcity and disruptions in food security, both of which have serious implications for human health. Droughts, floods, and changing rainfall patterns are affecting the availability and quality of water in many regions. Lack of clean water increases the risk of waterborne diseases, such as cholera, diarrhea, and typhoid fever, while disruptions in food production can lead to malnutrition and food insecurity, especially in low-income countries.

The authors emphasize the need for resilient agricultural systems, improved water management, and international cooperation to ensure that vulnerable populations have access to sufficient, safe food and water. Climate-smart agriculture and the development of drought-resistant crops could be key strategies in mitigating these risks.

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Air quality and respiratory diseases

The changing climate is also worsening air quality, which has significant implications for respiratory health. Wildfires, which are becoming more frequent and intense due to climate change, produce large amounts of particulate matter (PM), which can be harmful when inhaled. This leads to an increase in respiratory diseases such as asthma, chronic obstructive pulmonary disease (COPD), and other lung conditions.

In addition, higher temperatures and increased humidity contribute to the formation of ground-level ozone, a key component of smog that aggravates asthma and other respiratory illnesses. The authors call for stronger air quality regulations, the reduction of fossil fuel emissions, and the promotion of clean energy solutions to mitigate the adverse effects of air pollution on public health.

Mental health effects

The mental health impact of climate change is often overlooked but is equally important. The trauma caused by extreme weather events, displacement due to rising sea levels, and the stress of living in an environment affected by climate change can have long-lasting psychological effects. Post-traumatic stress disorder (PTSD), anxiety, and depression are becoming more prevalent as a result of climate-related disasters. Additionally, the ongoing eco-anxiety—a term used to describe the fear and worry about the future of the planet—is affecting individuals globally, particularly among young people.

The authors stress the need for mental health support as an integral part of climate change response strategies, including providing services for individuals and communities impacted by climate-related disasters.

The way forward: an integrated approach to climate and health

As the health effects of climate change continue to escalate, it is clear that addressing the crisis requires a multi-pronged approach that includes both climate action and healthcare reform. The authors advocate for the following strategies:

- Health should be a central component of climate change adaptation and mitigation efforts. Governments should prioritize health in climate change action plans and ensure that health systems are prepared to handle the health impacts of climate change.
- Strengthening healthcare infrastructure, particularly in vulnerable regions, is essential to cope with the growing health burden caused by climate change.
- Developing early-warning systems for extreme weather events, disease outbreaks, and other climate-related health threats can help protect vulnerable populations.
- Climate change is a global problem that requires global solutions. International cooperation on climate policy, funding, and technology transfer is crucial for protecting health worldwide.

CONCLUSION

The health impacts of climate change are becoming increasingly apparent and must be addressed with urgency. From heat-related illnesses to the spread of infectious diseases and mental health challenges, climate change is presenting new and growing risks to human health. By adopting a holistic approach that integrates climate action with healthcare strategies, the global community can mitigate the health effects of climate change and protect the well-being of future generations.