

Health Impacts of Climate Change

Climate change increases morbidity and mortality in all aspects of human life. Intuitively, changes to temperature affect our habitat, behaviors, health; however, the impact from climate change devastates society in unprecedented ways. From drastic flooding to overwhelming droughts, the range of health impacts is extensive. For greater insight on health and climate, we must conceptualize the impact of heat on health, as well as water and land-based health impacts.

Heat changes our lives, and we have adapted to these temperature increases in past. As the temperature continues to rise, it is increasingly more difficult to adapt in places where high heat was never an issue previously. Researchers developed a way to attribute heat-related deaths to anthropogenic climate change and found that each nation experiences differences in these impacts, ranging from a 9%-57% relative risks for heat-related mortality.¹ The same study found that 37% of deaths during the warm season are attributable to climate change.¹ With the variability of climate change and its impacts across the world, climate vulnerability is unique to each region.² More specifically for humans, heat is also associated with an increase in chronic disease related hospital visits (for health issues such as heart disease and lung disease), hospital visits due to mental health, and negative birth outcomes.³ However, the most prominent effect of heat on human health is the devastating health inequities experiences by vulnerable populations. With rising temperatures and accompanying natural disasters, privileged populations are planning to move away from areas with environmental decline. On the other hand, almost 50% of US citizens do not have the means to move, so their quality of life will diminish with greater heat and less water.⁴ With greater mortality, increased hospitalizations, and escalated health inequities, climate change impacts human health on the individual and societal level by intensifying already established health issues and creating new ones.

Climate change not only affects health directly through heat, but it also affects health and quality of life through changed water and land. With our reliance on water for survival, the increase of extreme weather events such as droughts and torrential rains strains our water resources.² The increase in rain events and flooding leads to a better environment for many vector-borne diseases to thrive in, with dengue transmissions increasing by more than 10%.⁵ Conversely, drought is associated with poorer air quality (through fires and dust), which in turn impacts our lung health by introducing particulate matter.⁶ With water and land being inextricably linked, the land used to bolster our health through healthy foods, exercise, and mental health is also impacted. Without the right amount of water, our food system is severely threatened in agricultural and livestock production, leading to an increased risk in global malnutrition.² Our land use also changes due to how and where we live. With the ongoing climate migration mentioned earlier, land farther from the equator that hasn't been previously developed will likely turn into metropolitans for humans to continue living in a comfortable state of being.⁴ With all resources that support human health affected by climate change, an inevitable change must occur to protect our quality of life.

Heat is the most popular health impact due to climate change. Heat endangers human health directly and indirectly through water scarcity and food insecurity. We must continue to recognize that these effects are inequitable depending on inherent vulnerabilities. As our health is so closely intertwined with the impacts of climate change, we must make better efforts in reducing our emissions and stabilizing climate with the goal of preserving our health.

References

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