

## **The Rising Heat: Climate Change and the Future of Health in Thailand**

**Puttisak Puttawibul, M.D.**

Editor-in-Chief

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Climate change is no longer a distant threat; it is a reality with tangible consequences, particularly in tropical regions like Thailand. Rising temperatures, extreme weather events, and shifting rainfall patterns are not just environmental concerns but significant threats to public health. The Intergovernmental Panel on Climate Change (IPCC) has identified Southeast Asia as one of the most vulnerable regions to climate change impacts, with Thailand facing increased risks of heatwaves, droughts, floods, and vector-borne diseases. These changes will have profound implications for disease incidence, population health, and the healthcare system as a whole.

One of the most direct impacts of climate change is the increase in heat-related illnesses. Heatstroke, heat exhaustion, and cardiovascular complications are likely to become more prevalent, particularly among vulnerable populations like the elderly and outdoor workers. Changes in precipitation patterns can lead to flooding, creating breeding grounds for disease vectors like mosquitoes and increasing the risk of dengue fever, malaria, and other mosquito-borne illnesses. Furthermore, droughts can impact agricultural yields and water availability, leading to malnutrition and food insecurity, with cascading effects on overall health and well-being. These shifting environmental conditions also pose potential work hazards, particularly for those employed in agriculture, construction, and other outdoor occupations, impacting productivity and economic stability.

Beyond the immediate health effects, climate change can exacerbate existing health disparities. Rural communities, often reliant on climate-sensitive livelihoods like agriculture and fishing, are particularly vulnerable to economic and health shocks triggered by extreme weather events. Migrant workers and marginalized populations may face increased risks due to limited access to healthcare and social protection mechanisms. The changing climate also has the potential to trigger climate migration within the country, putting further strain on urban infrastructure and healthcare resources.

To address these challenges, Thailand's healthcare system needs to proactively adapt. This includes strengthening public health infrastructure, improving disease surveillance and early warning systems, and building capacity for climate-

resilient healthcare services. Investing in research to understand the specific health impacts of climate change in Thailand is crucial. Furthermore, integrating climate change considerations into health professional training and public health education will be essential to equip future healthcare providers with the knowledge and skills to address emerging health challenges. Ultimately, a multi-sectoral approach involving government agencies, healthcare providers, and communities is vital to building a climate-resilient and healthy future for Thailand.

## REFERENCES

1. Bento VA, Lima DCA, Russo A. Assessing climate-related risks: heatwaves, droughts, fires, and pollution in vulnerable regions of the globe. 18<sup>th</sup> Plinius Conference on Mediterranean Risks; 30 Sep–3 Oct 2024; Chania: Plinius; 2024;18–57.
2. Leapv SR, Soled DR, Sampath V, Nadeau KC. Effects of extreme weather on health in underserved communities. *Ann Allergy Asthma Immunol* 2024;133:20–7. doi: 10.1016/j.anai.2024.04.018.
3. Thomson MC, Stanberry LR. Climate change and vectorborne diseases. *N Engl J Med* 2022;387:1969–78. doi: 10.1056/NEJMra2200092.