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## Correspondence:

Dr. Aishana Joshi

Spice Route Nepal - WONCA Young Doctors Movement, Kathmandu, Nepal

Email: joshiaishana@gmail.com

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## Adopting climate change training for doctors: building resilient communities through green advocacy, action and sustainable health care practices

Aishana Joshi<sup>1</sup>, Bikash Gauchan<sup>2</sup>, Aarati Shah<sup>3</sup>, Bigyan Lamichhane<sup>4</sup>, Puspa Mani Kharal<sup>5</sup>

<sup>1</sup>Chair, Spice Route Nepal - WONCA Young Doctors Movement; <sup>2</sup>Prof., Dept. of General Practice & Emergency Medicine, Rapti Academy of Health Sciences, Ghorahi, Dang, Nepal; <sup>3</sup>Consultant General Practitioner, Smart Health Clinic, Kathmandu, Nepal; <sup>4</sup>Consultant GP & EM, Matrishishu Miteri Provincial Hospital, Pokhara, Kaski, Nepal; <sup>5</sup>Consultant General Practitioner, Nagarjun Health Care Centre, Kathmandu, Nepal

### Abstract

Climate change poses a significant threat to the health of people worldwide. The escalating climate crisis presents unprecedented challenges to both physical and mental health. Doctors, particularly Family Physicians, play a crucial role in addressing the intersection of climate change and health. However, clinicians lack formal training to effectively manage the specific impacts of climate-related health conditions such as heat cramps, exhaustion, heat stroke and mental health impacts like eco-anxiety, depression and post-traumatic stress disorder (PTSD). Training doctors on climate change involves equipping them with knowledge and skills to address the health impacts of changing climate both in their clinical practice and in broader public health efforts. We aimed to explore the importance of training doctors on climate change adaptation strategies so that they can integrate green advocacy, sustainable healthcare practices and mental health support into their daily clinical practices to mitigate the health impacts of climate change. Additionally, the article discusses the need for doctors to advocate for climate-resilient policies and health systems to foster community-based initiatives that enhance local resilience.

**Keywords:** Climate Change Training, Doctors, Sustainable Health Care Practices

## INTRODUCTION

The climate crisis is rapidly transforming the landscape of global health with profound impacts on both physical and mental well-being.<sup>1-3</sup> Extreme weather events, rising temperatures and environmental degradation are not only increasing the burden of physical health problems but also exacerbating mental health challenges such as eco-anxiety, depression and post-traumatic stress disorder (PTSD).<sup>4,5</sup> Family physicians are at the forefront of addressing these health impacts, yet many lack the training necessary to recognize and respond to the physical, psychological and mental health impacts of climate change. This article explores how training doctors on climate change adaptation techniques can integrate green advocacy, sustainable healthcare practices and mental health support, emphasizing the need for a comprehensive approach to building both individual and community resilience in the context of climate uncertainty.<sup>6,7</sup> The climate crisis is no longer a distant future threat—its effects are being felt right now. Extreme weather events like extreme heat, flash floods, drying of water sources, environmental degradation, forest fires, air and water pollution have led to several adverse health conditions resulting in significant morbidities and mortalities. Adopting formal and structured climate change training for doctors is essential to equip them with the knowledge and skills needed to support resilient communities in the context of climate change.

### The Climate-Health nexus

The Climate-Health nexus highlights the deep interconnection between the climate and human health. Climate change contributes to a wide range of health impacts, including increased respiratory and cardiovascular diseases due to worsening air pollution, the spread of infectious diseases as warmer temperatures expand the habitats of vectors like mosquitoes and more frequent heatwaves that can lead to heat-related illnesses like heat exhaustion, cramp and heat stroke. Additionally, extreme weather events such as floods and droughts threaten food and water security, exacerbating malnutrition and increasing the risk of waterborne diseases.<sup>8</sup> Vulnerable populations including children, the elderly and those in low-income communities are highly affected making climate change not only an environmental issue but a pressing public health crisis.<sup>9</sup> All these events and conditions can trigger a wide range of mental health challenges like eco-anxiety, depression and post-traumatic stress disorder (PTSD).

### Why training on climate change for doctors matters?

Climate change is increasingly recognized as a major public health threat making it essential for doctors to be trained in understanding and addressing its health impacts.<sup>6,7</sup> Climate change training is particularly crucial for Family Physicians being the first point of contact for patients in health care, and also as they serve communities across all ages and health conditions. Family Physicians are uniquely positioned to recognize early signs of climate-related illnesses such as asthma exacerbations due to poor air quality, heat-related stress and spread of water and vector-borne diseases. They can also play a crucial role in educating patients about

preventive measures and advocate green solutions in building resilient communities. With the ability to integrate environmental health into routine care and advocate for healthier environments, Family Physicians can bridge the gap between health and climate change ensuring a more responsive and effective health care systems.<sup>10</sup>

Family physicians are not only responsible for the immediate healthcare needs of their patients, but they also serve as trusted community figures. They are often the first to recognize mental health symptoms in patients particularly those linked to environmental stressors.<sup>11</sup> However, many clinicians lack the tools, knowledge, clinical skills and support to address climate-related mental health challenges effectively.<sup>12</sup> Training doctors to understand the physical, mental and psychological impacts of climate change can provide appropriate support resulting in significant benefits for individual and community resilience. Providing doctors with comprehensive training on how to recognize, respond and advocate for general health and mental well-being in context of climate change is vital in building resilient communities for a healthier future.

### Building climate change training framework for green advocacy and sustainable health care practices: A call for action

Doctors, particularly those in primary care, are in the forefront in addressing the health impacts of climate change. Training doctors to understand the physical, mental and psychological impacts of climate change is the first step in building healthier communities. The climate change training framework should be built around following key areas to address and mitigate the health impacts of climate change:

**1. Recognizing climate related health symptoms:** Doctors should be adequately trained to identify the symptoms of extreme heat and cold climates, diseases due to air pollution like Asthma and COPD, vector borne illnesses like dengue, malaria; mental health impacts of climate change like eco-anxiety, depression and other climate-induced mental health conditions. Equipping healthcare workers with the knowledge and skills needed to respond effectively during climate-related events can significantly reduce morbidity and mortality.

**2. Providing immediate mental health support:** Clinicians should be equipped with tools to offer immediate coping strategies in episodes of distress during extreme weather conditions. Techniques such as mindfulness, relaxation exercises and stress reduction practices can help patients manage their anxieties in response to ongoing environmental stressors and during aftermath of disasters.

**3. Public health education:** Doctors can play a vital role in educating communities about how climate change impacts both physical and mental health. By offering workshops, seminars and educational campaigns, clinicians can help raise awareness regarding strategies to cope with the health impacts of climate stressors.

**4. Hospital preparedness for climate related health emergencies:** Hospitals need to be prepared for extreme weather events like heatwaves, floods, hurricanes and wildfires which are becoming more frequent due to climate

change. This includes disaster preparedness plans and staff training by establishing comprehensive emergency protocols to handle large-scale health emergencies, ensuring supply chain continuity and preparing for infrastructure challenges like power outages.

**5. Reducing health care carbon footprint:** Doctors should be trained to take measures to reduce greenhouse gases such as minimizing anesthesia gases and inhalers, and identify where disposable materials can be replaced with recyclable or reusable ones.

**6. Planning referrals and continuum of care:** Effective training should also include appropriate referrals to ensure patients, especially vulnerable populations are referred to specialized services for advanced respiratory care, disaster relief services and mental health support. Coordinating care across different levels from emergency services during extreme events to long-term health management ensures comprehensive, timely and continuous support.

**7. Advocacy for climate resilient health policies:** Training doctors and healthcare professionals in climate-resilient health policies is essential for building a workforce capable of responding effectively to health impacts of climate change. It should also emphasize in engaging clinicians with policymakers, stakeholders, organizations and communities to push for policies that promote climate adaptation and resilience in healthcare systems.

**8. Green policies in healthcare:** As the healthcare sector is a significant contributor to global carbon emissions, clinicians should be trained to advocate for green initiatives that reduce the environmental impacts of hospitals and clinics. Transitioning from paper-based records to electronic medical records (EMRs) can significantly cut down on paper waste and energy used in printing and storing physical files. Hospitals can also reduce energy consumption by upgrading to energy-efficient lighting using solar energy, implementing solar based temperature control systems and opting for telemedicine to reduce patient travel. Additionally, choosing eco-friendly medical supplies, reducing plastic use and promoting recycling within the facility can help lower waste production.

**9. Climate resilient healthcare infrastructure:** Healthcare facilities should be equipped to withstand extreme weather events and disasters. Doctors should be trained to advocate for resilient healthcare infrastructures that can continue to provide care during and after climate-related events

**10. Sustainability in clinical practices:** Doctors should be trained continuously to integrate sustainable practices within their routine practices. This includes reducing energy consumption, minimizing waste and supporting eco-friendly products. These practices not only help to mitigate the health sector's environmental impact but also set an example for patients and the broader community.

## CONCLUSION

As the climate crisis deepens, the need for climate change training for clinicians becomes increasingly urgent. By equipping doctors with the knowledge and skills to address the health impacts of climate change, we can

foster resilient communities that are better prepared to face the climate and environmental challenges ahead. The training should focus on understanding climate-related health risks, implementing preventative measures, integrating sustainable clinical practices in routine care and implementing green policies in health systems. By adopting comprehensive climate change training, clinicians can become key agents of change in building resilient communities.

## REFERENCES

1. Paavola J. Health impacts of climate change and health and social inequalities in the UK. *Environ Health*. 2017 Nov;16:61-8. | [Full Text](#) | [DOI](#) |
2. Cianconi P, Betrò S, Janiri L. The impact of climate change on mental health: a systematic descriptive review. *Front Psychiatry*. 2020 Mar 6;11:490206. | [Full Text](#) | [DOI](#) |
3. Walinski A, Sander J, Gerlinger G, Clemens V, Meyer-Lindenberg A, Heinz A. The effects of climate change on mental health. *Deutsches Ärzteblatt International*. 2023 Feb 24;120(8):117. | [Full Text](#) | [DOI](#) |
4. Cosh SM, Ryan R, Fallander K, Robinson K, Tognela J, Tully PJ, et al. The relationship between climate change and mental health: a systematic review of the association between eco-anxiety, psychological distress, and symptoms of major affective disorders. *BMC Psychiatry*. 2024 Nov 20;24(1):833. | [Full Text](#) | [DOI](#) |
5. Léger-Goodes T, Malboeuf-Hurtubise C, Mastine T, Gagnéux M, Paradis PO, Camden C. Eco-anxiety in children: A scoping review of the mental health impacts of the awareness of climate change. *Frontiers in psychology*. 2022 Jul 25;13:872544. | [Full Text](#) | [DOI](#) |
6. Hackett F, Got T, Kitching GT, MacQueen K, Cohen A. Training Canadian doctors for the health challenges of climate change. *The Lancet Planetary Health*. 2020 Jan 1;4(1):e2-3. | [Full Text](#) | [DOI](#) |
7. Lemery J, Balbus J, Sorensen C, Rublee C, Dresser C, Balsari S, et al. Training clinical and public health leaders in climate and health: commentary explores training clinical and public health leaders in climate and health. *Health Affairs*. 2020 Dec 1;39(12):2189-96. | [Full Text](#) |
8. Curtis S, Fair A, Wistow J, Val DV, Oven K. Impact of extreme weather events and climate change for health and social care systems. *Environ Health*. 2017 Nov;16:23-32. | [Full Text](#) | [DOI](#) |
9. Nieuwenhuijsen MJ. Climate crisis, cities, and health. *Lancet*. 2024 Oct 26;404(10463):1693-700. | [Full Text](#) | [DOI](#) |
10. Lauriola P, Serafini A, Santamaria M, Guicciardi S, Kurotschka PK, Leonardi GS, et al. Family doctors to connect global concerns due to climate change with local actions: State-of-the art and some proposals. *World Medical & Health Policy*. 2021 Jun;13(2):199-223. | [Full Text](#) | [DOI](#) |
11. Hale I, Bell RW. Family doctors well suited to being climate leaders. *Canadian Family Physician*. 2023 Apr 1;69(4):230-2. | [Full Text](#) | [DOI](#) |
12. Colbert CY, French JC, Brateanu A, Pacheco SE, Khatri SB, Sapatnekar S, et al. An examination of the intersection of climate change, the physician specialty workforce, and graduate medical education in the US. *Teaching and Learning in Medicine*. 2022 Jun 14;34(3):329-40. | [Full Text](#) | [DOI](#) |