*Ethical Viewpoint*

# Teaching Climate-Conscious Care in Medical Education: A Moral Imperative for Medical Educators

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It is becoming harder to deny that the climate crisis is also a health crisis. In fact, for many communities, it is no longer something abstract or distant. Its effects are showing up in clinics, emergency rooms, and public health reports across the world [1]. We are seeing more patients with heat exhaustion during long summers, more cases of asthma and other breathing problems linked to poor air quality, and changes in the spread of infectious diseases that used to be limited to specific regions. Floods and storms disrupt access to medicines, destroy infrastructure, and expose people to unsafe drinking water. These are not environmental issues alone. These are clinical realities that directly affect patient care [2]. Still, most medical schools do not teach climate change in a way that connects it to diagnosis, treatment, or prevention.

This gap between what students are taught and what they will face is concerning. It suggests that the curriculum is not keeping pace with the world around it. The problem is not that climate change is not being discussed at all. Some schools have included sessions or lectures about planetary health [3]. But these are often optional, placed on the sidelines of the core curriculum. The way topics are presented matters. If something is taught as an extra, it is seen as secondary. If it is not assessed, students quickly learn that it is not essential. As a result, many future doctors leave medical school without understanding how climate and health are linked, or what they can do about it in their own practice.

This is not just a content issue. It is a question of how we define the responsibilities of a physician. If doctors are expected to care for health in its full sense, they need to be prepared for the health threats caused by a changing planet [4]. This includes understanding patterns of disease that shift with weather and temperature but also learning how their own clinical decisions affect the environment. Medicine uses large amounts of energy and generates a lot of waste. Climate conscious care involves not only treating patients well but also reducing unnecessary resource use, questioning habits that may not be sustainable, and making choices that consider the long-term impact on communities and ecosystems [5]. Students need to learn this early, not as an afterthought, but as a central part of what it means to practice medicine responsibly in the twenty first century.

Every patient that comes into a hospital or clinic brings more than just their symptoms. They bring their living conditions, their environment, and the effects of systems much bigger than themselves. A person with frequent asthma attacks might live next to a busy road or in overcrowded housing. A patient with repeated infections after floods may be facing poor sanitation or unsafe water. These are not unusual situations anymore. The line between environmental exposure and health is becoming clearer with each passing year. And yet, in most clinical settings, these factors are not

routinely discussed or recorded. Medical education often trains students to focus on the body in front of them, but not always the world around that body [6].

If we are determined about preparing doctors to care for patients as whole people, then we need to help them see how social and environmental factors shape health. This does not mean that every doctor must become an expert in environmental science or policy. It means they should have the awareness to recognize when climate and environment are part of the clinical story, and the confidence to act on that knowledge. Climate conscious care is not a specialty. It is a perspective. It means noticing patterns, asking the right questions, and making choices that reflect an understanding of both the patient and the planet [7].

Medical schools can start building this perspective by weaving climate related thinking into everyday teaching. For example, case discussions can include environmental exposures. Community medicine postings can help students connect air and water quality to disease. Discussions about diagnostic tests can include their resource use and environmental cost. These are not distractions from the main curriculum. They are ways to make clinical education more realistic and more connected to the world in which doctors will work.

At its core, this is about helping students see medicine as something bigger than individual interactions. It is about developing a sense of shared responsibility. Future doctors will have to care not just for patients in hospitals but for populations at risk from heat, pollution, food insecurity, and displacement. They will need to make decisions that consider both immediate outcomes and long-term sustainability [8]. That kind of thinking does not happen by accident. It happens when we teach students that their role is not only to treat but also to understand, to question, and to imagine better systems of care that do not treat the environment as an afterthought, but as part of the health story from the very beginning.

Medical educators play a central role in shaping how future doctors understand the scope of their responsibilities [9]. Teaching is not only about content delivery. It is about framing what matters and setting the tone for what is considered part of the professional identity. In the context of climate and health, educators are often the first point of influence for students who are beginning to form their views on what it means to care responsibly [10]. When the topic of environmental health is treated as peripheral, students receive a silent message that these issues are secondary or optional. But when faculty integrate climate related thinking into clinical discussions, even in small ways, it signals that planetary health belongs in the shared moral space of medical education.

Many students already arrive in medical school aware of the climate emergency. They may have personal experiences of environmental disruption, or they may have followed the science with growing concern. However, without structured opportunities to explore these concerns in a medical setting, that awareness can remain disconnected from their professional development. Educators have a unique opportunity to bridge this gap. By acknowledging that the health of the environment is deeply linked to the health of patients, faculty can help students see that climate awareness is not an added responsibility. It is a necessary extension of the physician's ethical duty to do no harm and to promote wellbeing.

This does not require radical restructuring of the curriculum. It begins with everyday teaching choices. A case discussion about respiratory illness can include questions about air quality. A lecture on infectious diseases can connect changing weather patterns with shifts in disease transmission. Bedside teaching can include reflections on resource use and waste reduction. Even informal conversations can encourage students to think critically about the environmental consequences of clinical decisions. Over time, these moments build a mindset in which climate consciousness becomes part of clinical reasoning, not a separate domain.

The larger goal is to cultivate a generation of physicians who understand that health care cannot be separated from the ecological systems in which it operates. Educators must model this understanding not only in what they teach, but in how they act. This might mean supporting hospital initiatives that reduce environmental impact, advocating for greener procurement policies, or participating in efforts to integrate sustainability into institutional planning. These actions demonstrate to students that environmental responsibility is not just a theoretical idea. It is something lived and practiced within medicine itself.

In the coming years, the effects of climate change will continue to shape the landscape of health care. Physicians will need to respond to new challenges with both scientific competence and ethical clarity. Educators have a responsibility to prepare students not just for the diseases they will encounter, but for the world in which those diseases will emerge. Teaching climate conscious care is, at its heart, an act of professional foresight and moral leadership. It ensures that the values of compassion, justice, and stewardship remain central to medical practice in a time of planetary uncertainty.

## REFERENCES

1. McMichael AJ, Woodruff RE, Hales S. Climate change and human health: present and future risks [published correction appears in Lancet. 2006 Sep 2;368(9538):842]. Lancet 2006;367(9513):859-69.
2. Jo DS, Nault BA, Tilmes S, et al. Global Health and Climate Effects of Organic Aerosols from Different Sources. Environ Sci Technol 2023;57(37):13793-807.
3. Boekels R, Nikendei C, Roether E, Friederich HC, Bugaj TJ. Climate change and health in international medical education - a narrative review. GMS J Med Educ 2023;40(3):37.
4. Fadadu RP, Jayaraman T, Teherani A. Climate and health education for medical students. Clin Teach 2021;18(4):362-4.
5. Giudice LC, Llamas-Clark EF, DeNicola N, et al. Climate change, women's health, and the role of obstetricians and gynecologists in leadership. Int J Gynaecol Obstet 2021;155(3):345-56.
6. Luo OD, Londono CA, Prince N, et al. The Climate Wise slides: An evaluation of planetary health lecture slides for medical education. Med Teach 2023;45(12):1346-8.
7. Nordrum OL, Kirk A, Lee SA, et al. Planetary health education in medical curricula in the Republic of Ireland. Med Teach 2022;44(11):1237-43.
8. Pillai P, Patz JA, Seibert CS. Climate Change and Environmental Health Must Be Integrated Into Medical Education. Acad Med 2021;96(11):1501-2.
9. Barrere-Cain R. Intersectional community-centred climate change curriculum is needed in health professional education. Int J Gynaecol Obstet 2023;160(2):388-90.
10. Blanchard OA, Greenwald LM, Sheffield PE. The Climate Change Conversation: Understanding Nationwide Medical Education Efforts. Yale J Biol Med 2023;96(2):171-84.

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