world view



Medical education—training toward a greener future

Credit: Gerald Njoagwuani

As medical students, we have a responsibility to our future patients, but our training is not preparing us for healthcare provision in the era of climate change, say Areeb Mian and Shujhat Khan.

n September, millions of young people across the world went on strike to demand swift action on climate change. Some may say that medical professionals should not be involved in public activism; we strongly felt we needed to join this movement. As medical students, we ascribe to the principles that drive all medics: to protect and promote the health of our patients. We will be the ones treating patients and combating diseases triggered by the myriad climate change–induced healthcare consequences. We have a responsibility to our future patients. Therefore, our silence is not an option.

The worsening global weather patterns and current climate projections have demonstrated the urgency with which action is needed. The climate is changing and changing rapidly. 18 of the 19 hottest years have all occurred since 2001. The United Nations Secretary General has described the climate emergency as a 'direct existential threat, and recently 11,000 scientists from 153 countries have declared a global climate emergency. During our formative years, we young people may have felt that it would be the responsibility of previous generations to combat the ever-growing threat of climate change. However, it is increasingly becoming clear that this struggle will be our generation's fight.

As medical students in an era of evidence-based medicine, we are encouraged to plan, foresee and prevent future health problems. Extreme weather patterns and shifting disease burdens will add increasing pressure on healthcare systems across the world. With the continued burning of fossil fuels, release of pollutants into the environment and consequent extreme weather patterns, there will be a rise in the burden of cardiorespiratory disease, heatstroke, mental-health illness, worsening patterns of vector-borne diseases and detrimental effects on agriculture. These effects will probably hit those who are most vulnerable in society, including the elderly, children, people with preexisting chronic diseases and those with a lower socioeconomic status. If we are not prepared, the impact on our already stretched healthcare systems has the potential to be catastrophic.

These effects are being recognized by medical organizations—for example, the Australian Medical Association has declared climate change a public health emergency. However, attention given to the health consequences of climate change within the wider medical corpus has remained minimal. The lack of emphasis on climate change within the medical curriculum has left medical students woefully ill prepared to deal with these challenges.

Medical education and curricula must keep pace with environmental changes. Teaching a handful of scattered facts misses the bigger picture: planetary health is intimately linked with human health. The two cannot be taught in isolation, and focused teaching is necessary not only to inform students of the science of climate change but also to prepare them for the actuality of the future of health on this planet.

In the future, improvements in human health will be iterative, and the world cannot afford to see health provision in isolation from environmental and publichealth concerns. Incorporating the health effects of climate change into medical undergraduate curricula will encourage students to think about future challenges

and produce innovative solutions and will create environmentally conscious physicians. For example, by encouraging a reduction in the consumption of red meat, which has beneficial physiological effects, with a reduced risk of cancer, heart attack and stroke, we can limit greenhouse gases, deforestation, water shortages and agriculture pollution. Modules related to healthcare sustainability, food security and healthcare policy making should be offered. This could foster an environment of critical thinking, interdisciplinary collaborations and eventual participation in global health policy making. More importantly, it may ultimately allow the acquisition of skills needed by the modern-day physician to deal with aging populations, shifting disease burdens and the increasing prevalence of non-communicable diseases.

As future clinicians, we can utilize our standing within society to make a tangible difference; the students of today will be the leaders of tomorrow. We find ourselves in a unique position to unite the public behind a palpable common cause—the health of our loved ones, friends and community, a value that is innately understood and upheld across society regardless of culture and the socio-economic status of its people. For their sake, we must demand that action be taken immediately.

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Competing interests

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