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PERSPECTIVE

Climate Change and Economic Inequality: Are We Responding to Health Injustices?

THALIA VIVEROS-UEHARA

Introduction

As climate change increases the prevalence of diseases, morbidity, and mortality, the half of the world's population that still lacks access to quality, affordable, and resilient health care finds it more difficult to prevent, treat, and rehabilitate from such impacts.[1] They, who bear the least responsibility for the greenhouse gas emissions currently warming the Earth's atmosphere—unlike the global richest 10% of the population—are the ones whose health is most compromised.[2] Are we addressing these climate change-related health injustices that economic inequality makes increasingly clear? In this essay, I contend that while current responses to the intricate interplay between climate change and health are well intentioned and crucial, they remain partial and, therefore, insufficient. This is because they focus primarily on reducing greenhouse gas emissions to prevent more frequent and intense climate events (climate change mitigation) while placing health system resilience through development and adaptation as a secondary priority (climate change adaptation).

Such oversight in climate change adaptation still leaves the most egregious health injustices unaddressed, right at our doorstep, as illustrated by the recent onslaught of climate hazards. Just this past October 25, category 5 Hurricane Otis struck the coast of the Mexican state of Guerrero, encountering a scenario devoid of a national adaptation plan.[3] At the national level in Mexico, the number of people without essential health services had risen by 23% between 2018 and 2022 due to budget cuts, while in Guerrero, more than 188,000 people lacked health care access already as of 2018.[4] The hurricane severely damaged over 120 hospitals in Acapulco alone, the state's capital city. This confluence of unfortunate factors—the weather event and the lack of a resilient health system—left 323,000 children in urgent need without adequate care.[5]

Thalia Viveros-Uehara, PhD, is a postdoctoral researcher at Tilburg Law School, Tilburg University, the Netherlands and Project Affiliated Researcher of the Global Health and Human Rights Project at the Petrie-Flom Center for Health Law Policy, Biotechnology, and Bioethics at Harvard Law School, USA.

Please address correspondence to the author. Email: t.viverosuehara@tilburguniversity.edu.

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Had Mexico invested in health infrastructure with a view toward adapting for climate change, the devastation wrought by Otis could have been less severe.

With this in mind, I provide an overview of some initiatives currently being undertaken by intergovernmental organizations, states, civil society, and research communities to respond to such health injustices. I conclude not in dismay but with a gesture toward hope in these actors' potential to leverage their agency, foster cross-sector solidarity, and draw on the human rights framework to chart a more transformative course toward a distributive, corrective, and procedural balance in favor of those at the bottom rung of the socioeconomic spectrum.

Addressing health injustices through climate change mitigation and adaptation

Throughout history, humanity has faced numerous health and environmental challenges that are deeply entwined with economic inequality and associated patterns of social exclusion.[6] Commentators have noted that the wealth generation of the affluent has come at the expense of the environment and the climate system.[7] Better-off individuals in income and wealth, benefiting primarily from an extractive and greenhouse gas-emitting economic model, have access to the means and circumstances that lead to better health outcomes.[8] Meanwhile, the less affluent—especially historically marginalized groups such as children, women, and racial and ethnic minorities—bear the health repercussions of the environmental devastation and climate system alteration stemming from wealth generation.[9] These health injustices are compounded by these populations' limited resources and the discrimination they face, resulting in markedly worse health outcomes.[10]

In facing such health injustices, history has also shown us that the agency and cross-sector solidarity of change agents, harnessing the potential of the human rights framework, can greatly facilitate the distributive, corrective, and procedural scales of justice in favor of the less affluent.[11] These transformative efforts involve ensuring the availability of accessible, acceptable, quality, and resilient health care services for everyone (corrective justice), within the flow of resources toward populations that lack them (distributive justice), and fostering the participation of affected individuals and groups in decision-making (procedural justice).[12]

At the heart of the health injustices spurred by the climate crisis lies a highly differentiated gradient of vulnerabilities among populations.[13] As illustrated by the seminal work of the late epidemiologist Anthony McMichael, these asymmetries are determined primarily by two factors: exposure to climate-related hazards (extreme or slow-onset climate events) and the social infrastructure in place to withstand the effects of such events (sensitivity of each group).[14] Both factors entail several determinants that are conducive to the enjoyment of the right to health. On the one hand, the environmental determinants crucially include a safe climate—a component of a healthy environment.[15] On the other hand, the social determinants encompass health infrastructure that is essential for populations to prevent, treat, and recover from climate-related diseases, primarily through health care facilities.[16]

Therefore, a transformative response to the health injustices exacerbated by climate change—the topic of a special section on health rights and the urgency of the climate crisis published in this journal two years ago—involves at least two aspects related to both environmental and social determinants.[17] First is mitigation, which entails reducing the greenhouse gas emissions that are warming our atmosphere and leading to an increased frequency and intensity of climatic events. Second, as the United Nations High Commissioner for Human Rights underscores, is the need to build resilient health care systems as a form of both adaptation and development.[18] This latter is particularly imper-

ative for the half of the world's population currently lacking access to such services, a deficiency acutely impacting historically marginalized populations—such as women and racial and ethnic minorities experiencing widespread discrimination.[19]

Which of such aspects (mitigation and adaptation and development), then, are incorporated in the responses to the intricate interplay between climate change and health by change agents such as intergovernmental institutions, courts, civil society, and research communities?

Intergovernmental organizations

The international climate change regime, under the United Nations Framework Convention on Climate Change, has enacted several instruments with the dual aims of (1) mitigation, to prevent our planet from warming beyond 2°C—ideally, even beyond 1.5°C above preindustrial levels—and (2) adaptation, to increase the ability to adapt to the adverse impacts of climate change. However, it was only in 2010 at the 16th session of the Conference of the Parties (COP) that countries were urged to formulate national adaptation plans inclusive of health considerations.[20] Moreover, it was not until the 2015 Paris Agreement that the regime recognized the importance of human rights, including the right to health.[21] As of 2021, only 49 countries reported having a health national adaptation plan, whereas of the more than 190 submitted nationally determined contributions (NDCs), 63% set health adaptation priorities.[22] While there has been no comprehensive assessment on how well national adaptation plans or NDCs align with the human rights framework, preliminary observations on the former suggest a prevailing lack of consideration by countries to prioritize bridging existing gaps in access to affordable, quality, and resilient health care services for marginalized populations currently without it.[23]

The World Health Organization has been pivotal in addressing the current gap within the Framework Convention on Climate Change relating to adaptation and development in health. Since 2008, it has released a series of initiatives and publications to assist countries in planning toward these goals.[24] At COP26 in 2021, the World Health Organization fostered political momentum to formalize the Alliance for Transformative Action on Climate and Health, aiming to construct climate-resilient and sustainable health systems.[25]

Increasingly, intergovernmental organizations are beginning to prioritize adaptation and development within the climate change-health nexus, akin to their efforts with mitigation. In October 2023, the COP27 presidency launched the health pillar of the Sharm El Sheikh Adaptation Agenda.[26] A key area of this pillar's work is to build the resilience of health systems and health care facilities, ensuring quality health care amidst a changing climate.[27] Moreover, for the first time in international climate negotiations, a Health Day will be observed at the upcoming COP28 in Dubai this December 2023, with discussions set to focus on climate-resilient health systems and health adaptation as central themes.[28]

Courts

At the country level, the human rights framework can be particularly influential in countries with monist constitutions that recognize the right to health and have open clauses regarding international human rights law, yet where health care systems have recently been weakened at the expense of the most vulnerable.[29] The recent surge in climate change litigation in Latin American countries seems to offer a prospect in this regard. However, in this region, while half of such lawsuits rely on the right to health to influence judicial decision-making, the remedies provided thus far are seldom distributive or corrective.[30] They typically mandate reductions in greenhouse gas emissions (mitigation) but do

not go so far as to require the provision of resilient health care services (adaptation and development) to the vulnerable communities bringing these claims—communities that confront both the risks of climate change or climate change-inducing industrial activities and the historical neglect of this key social determinant of health.[31]

Civil society and the health sector

Health Care Without Harm, Alianza Médica contra el Cambio Climático (Medical Alliance against Climate Change), the 2018 call of the International Council of Nurses, and the Global Climate and Health Alliance (GCHA) represent a still small but growing number of civil society initiatives aiming to address climate change and health concerns simultaneously. The first two focus primarily on strengthening the mitigation potential of the health care sector by advocating for a reduction in its environmental footprint.[32] Similarly, while the International Council of Nurses acknowledges the importance of the quality and availability of health care in reducing existing health vulnerabilities, its recommendations emphasize environmental impact reductions instead of the health care deficiencies exacerbated by economic inequality.[33]

Meanwhile, GCHA's overarching vision centers on health as a driver for climate change mitigation, based on the well-acknowledged fact that reducing greenhouse gas emissions can yield "health co-benefits" globally.[34] The GCHA incorporates this critical vision into its evaluation of countries' NDCs, focusing on actions within the health sector.[35] It evaluates whether countries have completed a vulnerability and adaptation assessment or initiated resilience and preparedness planning, paying particular attention to health care.[36] Initiatives like this could substantially benefit from incorporating a human rights lens—for example, by broadening the assessment criteria not only to ensure compliance with planning but also to illuminate crucial aspects of the substance of the plans along the distributive, corrective, and procedural dimensions of justice. This includes a focus on availability, accessibility, acceptability, quality, and resilience, especially through the participation of socially excluded populations.[37]

Research communities

In September 2021, just a few months before COP26 took place in Glasgow, 260 journals, predominantly in the medical field, simultaneously published an editorial.[38] They called for wealthy nations, which have contributed disproportionately to the environmental crisis, to give more to support low- and middle-income countries in building "cleaner, healthier, and more resilient societies."[39] While this call placed equity at the center of the global response and highlighted the need to support the redesign of health systems, its focal point was the need to keep the global temperature rise below 1.5°C—that is, mitigation—to protect public health.[40]

The research community has also begun exploring the potential of strategic litigation in the realm of public health and climate change. In October 2021, the European Public Health Association co-hosted a dialogue emphasizing the crucial role of health care professionals in gathering and documenting evidence in medical files, which can subsequently be utilized in climate litigation to urgently challenge CO_2 emitters.[41]

Both highly visible scholarly initiatives focus solely on climate change mitigation. However, balancing these efforts toward climate change adaptation, more recent endeavors are increasingly emphasizing the importance of building resilient health systems. For instance, the Wellcome Trust's Climate Impacts Awards funding scheme, launched just this year, supports interdisciplinary research aimed at addressing the needs of populations most

at risk from the health impacts of climate change.[42] Additionally, in August 2023, the Centre on Law and Social Transformation at the University of Bergen, in collaboration with the Bergen Centre for Ethics and Priority Setting in Health, fostered a global academic exchange on ways to ensure fairness and effectiveness in health systems in the context of inequalities and climate change.[43]

Conclusion

While the synopsis of initiatives provided by this essay is by no means comprehensive, I have tried to set forth an initial barometer on such responses. Current initiatives' focus on climate mitigation, while crucial, is insufficient on its own. The urgent provision of accessible, acceptable, quality, and resilient health care to the 3.5 billion people in the world who need strengthened prevention, treatment, and cure is rarely advocated for, yet they are the most at risk of health impacts from climate change. If the climate change-health agenda advocates *solely* for emissions reduction or the improved carbon footprint of *existing* infrastructure, it will predominantly benefit the income groups that already have access to adequate quality health care and are thus able to better withstand the health impacts of climate change.

The recent momentum of health in climate change adaptation, as seen through initiatives such as the Sharm El Sheikh Adaptation Agenda and COP28 Health Day, becomes even more promising when paired with the transformative potential of cross-sector solidarity and the human rights framework, as history has demonstrated. Addressing the health injustices stemming from the intertwined crises of climate change and economic inequality is an "all hands on deck" endeavor, aiming to redistribute resources, compensate those affected, and empower the voiceless. Indeed, intergovernmental organizations, states, civil society, and research communities all play a vital role in this effort, with their agency, collaboration, and use of the human rights framework being profoundly instrumental.

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