The Journal of Climate Change and Health 1 (2021) 100002

Contents lists available at ScienceDirect

The Journal of Climate Change and Health

journal homepage: www.elsevier.com

Short communication

Health professionals, the Paris agreement, and the fierce urgency of now

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ARTICLE INFO

Article history:
Received 12 January 2021
Accepted 15 February 2021
Available online 11 November 2020

Keywords:
Climate change
Human health
Paris Agreement
Advocacy
Global health
Planetary health

ABSTRACT

A stable climate is the most fundamental determinant of human health. Therefore, the goal of the Paris Agreement—limiting global warming to no more than 2 degrees Celsius—is arguably humanity's most important public health goal. To accomplish this goal, nearly all nations must greatly increase the ambition of their Nationally Determined Contributions at the upcoming United Nations COP26 meeting in 2021. We argue that health professionals and health organizations can and must join the growing global community of science-based advocates working to achieve the goal of the Paris Agreement. Doing so can be our greatest contribution to the health and wellbeing of all people, especially the world's most vulnerable, marginalized and disempowered people who tend to be harmed first and worst.

During the first two weeks of November 2021, leaders of all nations will convene at the 26th United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties meeting in Glasgow, Scotland. That meeting, COP26, is likely to be a turning point which determines the fate of human health, prosperity, equity and justice worldwide, for current and future generations. Health professionals and their organizations—worldwide—should mobilize now to influence the outcome of that meeting.

The stated goal of the Paris Agreement is to limit global warming to no more than 2 degrees Celsius. At COP26, the world's leaders will review progress toward this goal. These leaders (or their predecessors) had previously established 2020, and every 5 years thereafter, as the deadline for nations to submit revised voluntary pledges to address climate change. These voluntary pledges, or Nationally Determined Contributions (NDCs), are the mechanism through which the Paris Agreement is to achieve its goal.

COP26 was originally scheduled for November 2020, however, as a result of the COVID-19 pandemic it was rescheduled to 2021. In response, 48 nations—members of the Climate Vulnerable Forum, an international collaboration of countries most vulnerable to climate impacts—called on all nations to join them in increasing their NDCs by midnight December 31, 2020. Increased climate ambitions, they argue, cannot wait and must be built into COVID-19 recovery plans [1].

There is no doubt that nearly all countries must increase the ambition of their NDCs if humanity is to accomplish the goal of the Paris Agreement. Disturbingly, the world is currently on a path to epic failure. Only approximately half of the necessary commitments toward decarbonization have been made, and most nations are significantly behind in fulfilling their pledged commitments. Even worse, under President Trump, the United States of America broke faith with the rest of the world by withdrawing from the Paris Agreement—although Mr. Biden has promised to immediately rejoin the Paris Agreement upon inauguration.

Moreover, the global climate science community—through the Intergovernmental Panel on Climate Change (IPCC) process—has

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https://doi.org/10.1016/j.joclim.2020.100002

since determined 2 degrees Celsius of warming cannot be considered safe [2]. They made a strong case for limiting global warming to no more than 1.5 degrees C, if possible, to minimize devastating climate change impacts to human health and wellbeing [3].

Climate change harms human health in a myriad of ways. Direct health harms result from increasingly extreme weather including heat waves and increasingly frequent and severe storms, floods and droughts. Indirect health harms result from worsening air pollution, increasing vector-borne diseases, increasingly contaminated water and food, reduced food production and less nutritious foods, mental health impacts, increases in conflict, damaged and destroyed housing and farmlands, and forced migrations. All of these harmful impacts interact with socioeconomic and biological factors—including age, gender, income, health status, racism and discrimination—such that the health of more vulnerable, marginalized and disempowered people tends to be harmed first and worst [4].

A stable climate is the most fundamental determinant of human health [5,6]. Thus, we believe the goal of the Paris Agreement is humanity's most important public health goal [7]. Failure will have dire consequences for human health and the natural systems on which humanity depends. This crisis is also a major issue of equity and justice as disempowered groups—including children and the elderly, women and girls, people of colour, indigenous people, economically disadvantaged people, and those living with disabilities—are suffering the greatest burden. Nevertheless, everyone will be affected.

In becoming health professionals, we committed to improving people's health and lives. How then can we contribute to averting this potentially catastrophic global health threat? Health professionals are incredibly busy, striving to deliver the best care and prevention programs, often without adequate resources. Moreover, COVID-19 has placed an enormous burden on already stressed healthcare and public health systems around the world, exposing their vulnerabilities. As a result, many health professionals are exhausted and overwhelmed.

Despite these challenges, eliminating the use of fossil fuels and heat-trapping super-pollutants (i.e., methane and hydrofluorocarbons used in refrigeration, air conditioning, insulation and propellants) is of utmost importance to protect the global climate and human health. Rapid decarbonization can also create extraordinary gains in human health, economic wellbeing, and community resilience, and can reduce the profound inequities that exist both within and between countries.

In 2018, the Global Climate and Health Alliance and dozens of other health organizations produced a "Call to Action on Climate and Health" in response to the global health emergency created by climate change [8]. The call specifically recommends policies that advance the following aims:

1 Meet and strengthen the commitments under the Paris Agreement
2 Transition away from the use of coal, oil and natural gas to clean, safe, and renewable energy.
3 Transition to zero-carbon transportation systems with an emphasis on active transportation.
4 Build local, healthy, and sustainable food and agricultural systems.
5 Invest in policies that support a just transition for workers and communities adversely impacted by the move to a low-carbon economy
6 Ensure that gender equality is central to climate action.
7 Raise the health sector voice in the call for climate action.
8 Incorporate climate solutions into all health care and public health systems.
9 Build resilient communities in the face of climate change.
10 Invest in climate and health.

These actions are crucial for stabilizing the global climate. Moreover, when developed and applied equitably, the health benefits of these actions can be enjoyed almost immediately—both locally and globally—particularly by communities already affected most detrimentally and unjustly by climate change. The rapid benefits of reducing air pollution, for example, include significant reductions in school absenteeism, clinic visits, hospitalizations, premature births, cardiovascular illness and death, and all-cause mortality [9,10]. Globally, the health cost savings alone from decarbonization will more than cover the entire costs of implementation [11].

Health professionals must join the growing global community of science-based advocates working to achieve the goals of the Paris Agreement. Fulfilling our commitment to protecting and improving the health of all people necessitates a diverse and broad coalition of actors. We must advocate and build support for transforming the world's energy, transportation, agriculture and other land use systems fast enough to protect human health and repair the climate system on which it depends. As health professionals, we must help build the public and political will necessary to achieve these aims, just as we work to end addiction and stop vaccine-preventable disease.

While trust in institutions and experts has declined sharply in recent years, health professionals remain among the most trusted groups in society [12]. Indeed, trust is our greatest asset. We must use the trust we have earned to engage with our nation's leaders—and with our communities, businesses, and civic leaders—and help them understand that climate change is creating both an unparalleled public health emergency, and opportunities for positive transformation. In doing this, we must be inclusive, amplifying and learning from those people who are disproportionately affected by the harms of climate change. And we must be unyielding in promoting equitable, systems-based solutions that will limit climate change and its catastrophic health harms, and will improve health, social and economic well-being for generations to come.

Our advocacy must resonate across the political spectrum, and must be adapted to local political, social and cultural contexts. What may build support in Brussels will be quite different from what works in Beijing or Bogota. Still, we must also coordinate our advocacy globally so health professionals in every nation can lean into this opportunity with full assurance that our colleagues around the globe are doing the same. Through such efforts we can greatly boost our nations' climate ambitions and commitments (i.e., NDCs) well before Glasgow 2021. Thereafter, we must remain vigilant to ensure our nations' leaders rapidly put in place the policies and programs that will deliver their promises in time.

Individually we are trusted, and collectively we can be powerful. Indeed, we must be powerful if we are to overcome the many forces that reinforce the status quo of highly inequitable fossil-fuel driven economies. These forces include fossil fuel companies with undue influence on the energy policies of nations, and authoritarian rulers who pretend that fossil fuels are economically advantageous for their people—when, in fact, they serve only to enrich many of the wealthy and politically powerful in each nation [13].

Another major asset that we must harness is the economics of clean energy, which are already advantageous—and are continually improving [14]. Indeed, in most of the world, humanity's energy needs can be met faster, better and cheaper with clean renewable energy—even without considering the health improvements and cost savings that result from clean energy [15].

The health sector must also lead from the front, by putting health care—which contributes 4.4 % of net global greenhouse gas emissions—on a path to net zero. In 2020, England's National Health

Service became the world's first national health care system to commit to decarbonization and a net zero pathway [16]. Thousands of hospitals and health systems on every continent are taking climate action, and forming a global movement for health care decarbonization, resilience, and access to clean energy. Indeed, in many countries these actions can make a significant contribution to achievement of their nation's NDCs. Moreover, when health professionals embrace this process, our actions can help lead broader societal transformations to climate-friendly energy, transportation, food and other systems that support healthy communities on a healthy planet.

The hour is late, and the odds are daunting, but we have an extraordinary opportunity at hand. We—health professionals worldwide—can and must rise to meet the fierce urgency of this moment. We must never underestimate our ability to influence the course of events.

The role health professionals have played in limiting the proliferation and use of nuclear weapons can remind us of our agency. In 1980, a small handful of American and Soviet physicians established the International Physicians for the Prevention of Nuclear War (IPPNW). Their message was simple: *A nuclear war would destroy civilization and might extinguish human life*. Their advocacy was pivotal in bringing the US and Russia together on developing and ratifying a nuclear test ban and arms reduction treaty. In his memoir, Mikhail Gorbachev specifically credited IPPNW for his decision to stop testing nuclear weapons and to enter a nuclear arms reduction treaty with the US [17]. Humanity is not yet free from the existential threats associated with nuclear war, but through the International Campaign to Abolish Nuclear Weapons, health professionals have helped achieved yet another major milestone—a United Nations Treaty on the Prohibition of Nuclear Weapons that will take effect on January 22, 2021.

COVID-19 has complicated our challenge to defend and strengthen the Paris Agreement in yet another way. To address the economic effects of the pandemic, by late May of this year the world's nations had committed $12tn to $15tn (US) in stimulus funding. Large amounts of the funding have been used to support fossil fuel and other carbon-intensive industries, while only a tiny fraction (>0.2 %) has been used in ways that address climate change [18]. Moreover, many nations have allowed regulatory rollbacks that undermine progress on climate change.

In response, health professionals around the world have voiced their alarm. In late May, over 350 organizations that represent more than 40 million health professionals wrote to the G20 leaders, calling for a #HealthyRecovery. They advocated strongly for creating a healthy recovery from COVID-19, calling for stimulus funds to be used to strengthen health systems, and to promote clean energy, clean air and clean water, and a stable climate—thereby helping to ensure a safe and healthy future for all. The World Health Organization followed with concrete recommendations—a "prescription for a healthy, green recovery" [19,20].

This #HealthyRecovery action was, to the best of our knowledge, by far the largest-ever mobilization of the health community. It represented more than half of all health professionals worldwide, and was a strong embodiment of the "planetary health pledge for health professionals in the Anthropocene" proposed later this year by Katharina-Jaqueline Wabnitz and her colleagues [21].

Margaret Mead noted: "Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it is the only thing that ever has." As a diverse group of committed citizens, deeply connected to our communities, and with the agency to influence our worlds' leaders, we—health professionals worldwide—have the potential to help the world strengthen and achieve the goal of the Paris Agreement. This can be our greatest contribution to the health and wellbeing of all people. The fierce urgency of now demands this. We must respond. To join us as a Climate and Health Champion, sign up here: http://climateandhealthalliance.org/climate-health-champion-signup

Declaration of Competing Interest

The authors report no declarations of interest

Acknowledgements

All of the authors are on the Board of Directors of the Global Climate and Health Alliance.

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